1938.

REPORT on the HEALTH and SANITARY CONDITION of the BOROUGH of SCUNTHORPE.

Medical Officer of Health :
W. HARTSTON, M.D., B.S., M.R.C.P., D.P.H.

Chief Sanitary Inspector
and Director of Public Cleansing :
J. GALLAGHER, M.S.I.A., M.Inst.P.C.

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Borough of  Scunthorpe.

Annual Report

ON THE

HEALTH and SANITARY

CONDITION OF THE TOWN

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J. GALLAGHER, M.S.I.A., M.Inst.P.C.

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1938.

BOROUGH OF SCUNTHORPE.

(Mayor : Alderman Edward Kennedy, J.P.)

Public Health Committee

Chairman : Alderman A. E. DOWSE.

Alderman J. A. JACKSON.
Councillor Mrs. A. EYRE, J.P.
Councillor J. G. CLUGSTON. (from Nov.)
Councillor H. C. COMAN. (to Nov.)
Councillor F. H. B. GOUGH.
Councillor J. P. MARSHALL.
Councillor E. PITTWOOD.
Councillor W. H. PULLING.
Councillor H. SPENCER.
Councillor J. HUTCHINSON.

Ex-Officio Members of Committee :
Alderman E. KENNEDY, Mayor (to November).
Alderman G. R. WALSHAW, Mayor (from November, 1938).

Public Health Department

Medical Officer of Health :
W. HARTSTON, M.D., B.S., M.R.C.P.(Lond.), D.P.H.

Chief Sanitary Inspector and Director of Cleansing :
JOSEPH GALLAGHER, M.S.I.A., M.Inst.P.C., Cert. Meat Insp.

Sanitary Inspectors :
DAVID P. NASH, C.R.S.I., Cert. Meat Insp.
W. RODGERS, S.I.J.B., Cert. Meat Insp.

Pupil Sanitary Inspector :
REGINALD G. PASSEY, S.I.J.B.

Infectious Disease Nurse :
Miss E. JONES, S.R.N., & R.F.N. (Cert. Midwife).

Clerks :
Miss M. F. PLUMTREE.
Miss M. POWER.
PETER McPHUN.

STATISTICS BRIEFLY SUMMARISED FOR 1938.

Area of the Borough	7,895 acres
Population—(Census 1931)	33,761
(Mid-Year 1938 Estimate)	42,000
Number of Inhabited Houses (December 1938 Rate Books)	11,688
Density of Population per acre	5 2
Rateable Value (31st March, 1938)	£235,188
Penny Rate represents	£884

The 1938 estimate of population given above is supplied by the Registrar General and has been used as the basis of all calculations in this report.

Fertility Rate (Legitimate births per 1,000 Married females under 45 years)	139
Birth Rate (per 1,000 total population)	20.3
(Legitimate Births—821 : M. 431 F. 390)	
(Illegitimate ,, — 32 : M. 15 F. 17)	
Death Rate (per 1,000 total population)	9.6
Stillbirth Rate (per 1,000 total births)	47.9
(Total No.—43 : M. 22 F. 21)	
Infantile Death Rate (per 1,000 Live Births)	33.9
Legitimate Infant Death Rate (per 1,000 Legitimate Live Births)	34.1
Illegitimate Infant Death Rate (per 1,000 Illegitimate Live Births)	31.2
Puerperal Deaths	2
(Puerperal Sepsis 2, Other Puerperal causes 0)	
Puerperal Death Rate (per 1,000 total births)	2 23
Deaths, all causes (M. 231 F. 173)	404
Deaths from Cancer (all ages)	42
Deaths from Measles (all ages)	2
Deaths from Whooping Cough (all ages)	2
Deaths from Diarrhoea (under 2 years of age)	1
Zymotic Death Rate	3.5
Tuberculosis Death Rate (all forms)	0.61

REPORT OF THE MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1938.

Summary.

This report has of necessity had to be abbreviated on account of the scant time available for its preparation. The country became involved in War before the report was completed, and the priority of emergency work delayed its publication.

The sanitary year was marred and disjointed by threats of war and preparation for war which gave rise to an almost overwhelming multiplication of the work of the Health Department with consequent modification of some and delay in other schemes and labours for the improvement of the hygienic state of the town.

Nevertheless the greatest efforts were exerted to maintain the achieved high tempo of sanitary conscience and in some directions even to improve the level of practice.

In this respect I must pay tribute to the loyal and unstinted help and co-operation of my colleague Mr. J. Gallagher, Chief Sanitary Inspector, and to every other member of the Health Department, for to each there has fallen increased labour ungrudgingly, cheerfully and efficiently undertaken.

The population and the activity of the town continue to increase. In ten years, Scunthorpe has added 11,000 persons to its population without increasing its area, so that the density of inhabitants has risen from an average of 4.01 persons per acre in 1928 to 5.2 in 1938. The number of inhabited houses has risen in ten years from 6,866 to 11,688 with a gratifying drop from 4.6 to 3.6 in the average number of persons occupying each house. This means that while more people and more houses are spreading themselves over the cartographic face of Scunthorpe, the inhabitants within their abodes are less densely aggregated.

The birth rate has increased very slightly and is still a generous local attribute comparing very favourably with the average figure for the whole country.

The Infant Mortality rate has fallen markedly and is in fact the lowest death rate for Infants under one year ever recorded in the town. The 1938 Infant Death rate for the Borough (33.9) is considerably lower than the corresponding rate for the whole country (53). I think the town may justifiably enjoy considerable satisfaction from these figures, for I know of no single index of progress in Public Health more sensitive or more significant than the Infant Mortality rate based, as here, upon the ratio of infant deaths to **live** births.

The crude death rate of persons of all ages was also slightly lower in 1938.

During the year a house to house census of child population in the Borough undertaken by the County Education Committee revealed that in July 1938 there were 10,716 children aged 0 to 15 years living in the Borough compared with 9,756 which is the figure at the National Census in 1931. This means that the increase in the total population of the town since 1931 is comprised largely of adults.

The incidence of infectious disease was increased during the year due to unusual prevalence of Diphtheria, Measles, Pneumonia and Chicken Pox. The increased Diphtheria reflects sadly the failure of so many parents to appreciate the value of protective immunisation and to take advantage of the free prophylactic treatment made available by the Corporation. If all (or nearly all) children were immunised, the disease would practically disappear instead of producing 145 cases with 7 deaths as in 1938, a terrible price paid for parental laziness. In this, as in most other Public Health reforms, a Medical Officer of Health can move forward no faster than the people are willing to follow. The only available accelerator is a mixture — to be frequently administered and repeated as occasion arises — of education, patience and persistence.

An unexpected, severe and peculiar outbreak of Pneumonia during a phase of influenza, visited the town in the spring and attracted the attention even of the academic epidemiologists. An account of the epidemic was recorded in the Medical Literature and is reprinted in this report.

The handling of the milk supply and its distribution in the town showed no improvement during the year. The bacteriological findings of the majority of samples of raw milk examined during the year were unsatisfactory. Compared with this, the microscopic cleanliness of nearly all sampled pasteurised milks provides the best advertisement for the safety and purity of milk heated by pasteurisation.

The town's water supply was the subject of special attention during the year and the findings of bacteriological examination of the constituent supplies resulted in January in the tempor exclusion from the town drinking supply of the North Lincoln water supply which had been found to be pure as it came from the deep bores, but unsatisfactory on its flow from the open reservoir. In August this North Lincoln Reservoir was emptied, cleaned and repaired, the water meanwhile being by-passed into supply. In December a chloramine steriliser with recorder was installed by the North Lindsey Water Board. In the same

month, the North Lincoln Iron Company refused the suggestion to instal such apparatus at the outflow of their reservoir.

Examination of domestic private well waters in the town showed many to be polluted. Representations to the owners and occupiers of the premises affected resulted in a reduction in the number of houses without corporation water from 46 to 24.

An investigation into the state of the atmosphere of Scunthorpe has convinced me that Santon is an unhealthy area for residence. Further scientific data are being collected to supplement the straightforward evidence of eye, nose and chest before making official representation.

During the year the number of caravan and shed dwellings was reduced from 52 to 11. We owe this "clean sweep" to the power and stimulus provided by the Public Health Act 1936, and to the determination of the Health Committee.

At the end of the year there were still 543 persons living in 63 overcrowded dwellings. The danger of this state of affairs receives comment in the chapter devoted to Tuberculosis.

A new and modern sewage disposal works for the Borough was in process of being built at the end of the year, but Scunthorpe still has many houses whose drainage does not go beyond a bad back garden cesspool!

A comment in last year's report on the deprivation deficiency in the administration of the local general hospital resulting from the absence of any Borough family doctors from the Management Board brought down a shower of abuse but was followed by a slight improvement in the composition of the Board which however still lacks the help which I think Scunthorpe medical practitioners could give.

We look forward to an expansion of the health services in the Town for the common good, free from the deteriorating influences of vested interest or arbitrary complacent isolation.

By a gentle and steady education of adults and children in the value of good health and in the principles of disease prevention and treatment, the progress made during the year should at least be maintained.

I offer my best thanks to all who provided detailed information included in the report.

W. HARTSTON,

Medical Officer of Health.

SOCIAL CONDITIONS.

Scunthorpe is a compact industrial town of very rapid growth and one of Great Britain's most important iron and steel centres. It is situated between the River Trent (West) and its tributary Bottesford Beck (Eastern boundary), varying in height from 58 to 168 feet above Ordnance Datum. The area of the Borough is 7,895 acres and it measures 4 miles from North to South and 3½ miles from East to West. The geological formation from west to east shows Basement Beds (Gryphoetic), Frodingham Ironstone, Lias Clay, Pecten Bed and Lias Clay. The general contour of the District slopes gently from West to East. Ironstone mining; the smelting, rolling and manufacture of iron and steel; casting of iron, steel and brass; the preparation of road making and building materials; the making up of blast furnace slag; tar distillation; and the preparation of basic slag fertilisers continued to form the chief industries of the town. "Shift work" in periods of eight hours throughout the day and night complicated the domestic and social life of the majority of the working people of the town.

The local steel industry enjoyed a year of intense activity and prosperity. An increased demand for workers resulted in the immigration of new families, increasing the total and the school population and creating a shortage of houses.

The **production of steel** ingots and castings rose from 733,500 tons in 1928 to 1,082,800 tons in 1938. Further coke ovens were built at two of the steel works, while the largest local works built additional blast furnaces and sintering plant. This expansion of local industry while bringing the blessing of increased commerce, extorts from the town a toll in amenity by an accompanying increase in industrial atmospheric pollution.

While at no time severe, there was an increase in **unemployment** in the second half of the year, as compared with 1937, due to a recession in the iron and steel industry. The monthly figures are given in a separate table.

Registered Unemployed in the Borough of Scunthorpe.

	Men.			Women.			
Month.	21+	18-21	14-18	21+	18-21	14-18	
1938.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	Total
January	394	41	45	172	58	112	822
February	298	27	27	170	47	92	661
March	353	34	14	65	31	64	561
April	365	34	8	64	35	54	560
May	487	34	22	82	25	124	774
June	665	35	22	94	15	68	899
July	646	45	33	82	17	62	885
August	700	51	53	48	13	69	934
September ..	1040	136	86	45	27	86	1420
October	781	81	39	50	43	88	1082
November	730	85	40	15	31	86	987
December ...	836	120	29	49	32	87	1153

Poor law relief was granted to 880 persons in their homes (630 in 1937) and 144 in institutions (83 in 1937).

On April 1st, 1938, the Infirmary portion of Brigg Institution was appropriated to the Public Health Service of Lindsey County Council, and thereafter was managed by the Public Health Committee.

The number of Scunthorpe **Blind Persons** on the County Register at the end of the year was:—

Adults 27

Children 2

The number of rate aided **persons of unsound mind** dealt with during the year 1938:—

(1) Under the Lunacy Act, 1890 13

(2) Under the Mental Treatment Act, 1930 1

The number of children in the care of **foster parents** in Scunthorpe in 1938 was 5 and to these, 36 visits were made by the County Council's Infant Life Protection Visitors.

Progress was made in establishing a **Youth Centre** in the town, the foundation stone of the proposed building in Doncaster Road being laid, with due ceremony, in October. It is expected that the building will be completed next year.

BIRTHS.

The total number of live births registered during 1938 was 853, compared with 812 in 1937. For the four quarters of the year in sequence the numbers of births were 211, 220, 212, 210.

32 **Illegitimate** births were registered in 1938 (41 in 1937). This is a smaller figure than last year's.

The crude birth rate for 1938 (i.e. births per 1,000 inhabitants) was 20.3 compared with 20.2 in 1937. The corresponding birth rate for England and Wales in 1938 was 15.1

The **Fertility Rate**, that is the birth rate per 1,000 fertile married women (under 45 years of age) was 139 during the year (131 in 1937) as compared with 121 in 1931, the year of the last Census. This is a more reliable index than the crude birth rate per 1,000 total population and the increase shown this year is a manifestation of improved economic and general health conditions in the town.

43 **stillbirths** were registered during the year compared with 35 in 1937. The number of stillbirths per 1,000 population was 1.02 compared with a rate of 0.60 for the whole country. This means that for every 20 children delivered alive in Scunthorpe, one is born dead; an increasingly high mortality which suggests that greater obstetric skill in the district should result in a conservation of infant lives, at present a loss to the population.

Table 1 gives the Ward distribution of births.

DEATHS.

404 deaths were registered during 1938 compared with 394 in 1937. The crude death rate was 9.6 (9.8 in 1937) and compares favourably with a rate of 11.6 for England and Wales. 167 of the total number of deaths occurred in persons over 65 years of age and 29 in infants under 1 year.

Tables 2, 3 and 4 give details of the Causes, Age and Sex Group and Ward Distribution of deaths. The diseases chiefly responsible for death after the first year of life were, in order of incidence, Diseases of Heart and Circulation, Lung Diseases, Cancer, Tuberculosis.

30.6% of the total number of deaths occurred in Public Institutions. The Zymotic Death Rate—that is deaths from Smallpox (0), Measles (2), Scarlet Fever (0), Whooping Cough (2), Diphtheria (7), Diarrhœa (1) and Enteric Fever (0)—a total of 12 was 0.28 per 1,000 population (0.07 in 1937, 0.18 in 1936).

The Pulmonary Tuberculosis Death Rate was 0.52 (0.72 in 1937), and the Non-Pulmonary Tuberculosis Death Rate was 0.09 (0.07 in 1937) per 1,000 population.

INFANT MORTALITY.

A total of 29 infants under 1 year of age died during 1938 compared with 38 in 1937. The Infant Mortality Rate (i.e. deaths of infants under 1 year per 1,000 live briths) was 33.9 compared with 46.8 in 1937 and 56.1 in 1936. The rate for England and Wales in 1938 was 53.

MATERNAL MORTALITY.

Two deaths associated with child birth occurred during the year from Puerperal Sepsis.

MEDICAL SERVICES IN THE AREA.
INSTITUTIONS.

Brumby Isolation Hospital (Lindsey County Council).

Situated in East Common Lane, admits cases of infectious disease and Tuberculosis from the Borough and surrounding district. 30 beds are available for infectious disease and 14 for cases of tuberculosis.

During 1938 there were admitted to Brumby Isolation Hospital:—

Diphtheria	90
Scarlet Fever	51
Typhoid	2
Paratyphoid	2
Enteric (?)	1
Erysipelas	4
Ophthalmia Neonatorum	3
Poliomyelitis	7
Measles Pneumonia	2
Whooping Cough Pneumonia	2
Observation	2
Influenza	2
Influenzal Pneumonia	10
Chickenpox Pneumonia	1
Measles and Mastoid	1
Scarlet Fever and Measles	1
Ringworm scalp	4
	185
Tuberculosis	27

Scunthorpe Maternity Home. (Lindsey County Council).

This institution is situated in Brumby Wood Lane, provides 24 beds (including 4 private rooms) and 6 isolation beds, the latter were not fully used owing to restrictions laid down by the Ministry of Health due to the absence of accommodation for a separate nursing staff for these beds. Plans have been approved to provide increased accommodation for patients at the Home.

Any woman living in the County Area may be delivered in the Home by her Private Medical Practitioner or by the Maternity Staff of the Home (Matron, 7 qualified Midwives and 10 nurses). In the latter case ante-natal supervision is also provided throughout pregnancy.

During 1938 there were 411 normal confinements conducted in the Home and 70 abnormal cases of which 68 were emergencies. The number of cases admittd for ante-natal supervision was 78, making a total of 559 cases admitted during the year.

Lindsey and Lincoln Joint Smallpox Hospital.

The institution at Osgodby has 32 beds available for cases of smallpox. It is administered by a Joint Board. No cases were admitted from Scunthorpe during 1938.

Scunthorpe and District War Memorial Hospital. Cliff Gardens.

This is a general voluntary hospital of 150 beds (of which 9 are for Private patients) dealing chiefly with surgical cases and with accidents and catering for the Borough and surrounding country to a radius of approximately 10 miles.

Further extensions are planned to provide additional private beds; a larger Out-Patient Department; and improved X-ray Department and a Laundry.

A scheme to provide a County Radium and X-ray therapy Centre for the treatment of Cancer has been proposed.

Brigg County Infirmary.

This hospital, situated six miles from Scunthorpe and hitherto maintained and administered by the Public Assistance Committee of the Lindsey County Council as a "Poor Law Institution," provides accommodation (87 beds) for the sick poor of the district. 71 persons from Scunthorpe were admitted to Brigg Infirmary during 1938. Admission to a "Poor Law Institution" still carries with it some stigma in the minds of the Public and it is expected that the appropriation of this Institution from April, 1938, by the County Public Health Committee will result in a greater use and increased popularity of the Brigg Infirmary.

Bracebridge Heath Mental Hospital, Lincoln. (Lindsey County Council).

1,200 beds are available here for the treatment of mental disorder arising in persons resident in the area.

Harmston Hall Colony (Lincs. Joint Board) and **Caistor Institution for Mental Defectives.** (Lindsey County Council).

Provide accommodation for certified mental defectives.

Branston Hall, Lincoln. (Lindsey County Council).

Is a Sanatorium admitting cases from this area of early tuberculosis occurring in Female adults and in children.

OTHER MEDICAL SERVICES.

Blood Transfusion Service.

This consists of 85 volunteer Donors of both sexes, organised by the Scunthorpe Division of the British Medical Association. The donors have been tested and grouped and they are available for transfusion purposes to any Medical Practitioner working in the Borough. Frequent use was made of this Service during the year by the local general Hospital and Maternity Home.

Private Medical Practitioners.

There are 18 Doctors living in the Borough engaged in Private practice. In addition 4 doctors living just outside the Borough also treat residents within the Town boundary.

Midwives.

The total number of practising Midwives in the District is 24.

Ambulance Facilities.

(a) FOR INFECTIOUS CASES. Removal is carried out by the Brumby Isolation Hospital Ambulance (Lindsey C.C.) or by the Authorities of the Hospital to which the patients are sent.

(b) FOR NON-INFECTIOUS AND ACCIDENT CASES. Three of the large Steel works have private ambulances for the use of their employees. The British Red Cross Society maintains an ambulance for general use in the district. At present the provision is adequate.

Scunthorpe Borough Nursing Association.

The Association now comprises 11 nurses and a Superintendent. All forms of domiciliary maternity and general nursing are carried out. During 1938, 1079 new general cases were attended involved 32,566 visits. 319 maternity cases necessitating 5,855 visits were also attended.

Public Assistance Domiciliary Medical Relief.

Sick persons in receipt of Poor Law Relief are given the choice of Medical Attendant from a small panel of 5 Scunthorpe Doctors who have agreed to give service under the County Council's scheme.

Vaccination against Smallpox.

Free vaccination is provided for :—

1. In the case of every child resident in the district on the request of the parent or other person in charge of the child.

2. In the case of every child resident in the district aged 4 months or more and as to whom the Public Vaccinator has received the requisite notice from the Vaccination Officer.

3. In the case of any person other than a child who applies to the Public Vaccinator from primary vaccination or for re-vaccination.

Public Vaccinators :—

Dr. J. H. Bellamy, "Sandfield," Ashby.
Dr. T. Cullen, 76, Oswald Road, Scunthorpe.

National Society for the Prevention of Cruelty to Children.

This Society continued to co-operate fully and readily with the Public Health Department in matters affecting the health of children, in finding suitable institutional accommodation and in bringing to the notice of the department certain cases in which action might with advantage be taken to prevent ill-health or to remedy existing defects.

During the year 88 cases, involving the welfare of 221 children, (of which 23 were "illegitimate"), were investigated by Mr. F. W .Jones, the Scunthorpe and North Lindsey Branch Inspector, who found most cases to be neglectful failure to provide adequate food, clothing or medical treatment.

Occupation Centre for Mental Defectives. (Lindsey C.C. Mental Deficiency Committee.)

This is held at the Y.M.C.A., High Street, Scunthorpe. The accommodation is insufficient and unsatisfactory. A separate building situated in quiet surroundings with a large garden in which the children can work and play is greatly to be desired.

15 children were on the register at the end of 1937, and 14 at the end of 1938. Only 3 children were able to read and write. 3,716 attendances were recorded out of a possible 5,632.

The types of mental defect are mostly imbecility, feeble-mindedness and mongolism.

Rugmaking, knitting, sewing, simple domestic work, personal hygiene and some physical training are the chief occupations provided. Speech training and physical training are arranged. The rudiments of "schooling" within the capacity of these children are given.

The value of the Occupation Centre in improving the habits and ability of these difficult children and in providing hours of peace and freedom for their parents is too high to be assessed in words or figures, and is deserving of greater recognition and encouragement.

Laboratory Services.

A considerable amount of bacteriological work is done by the Medical Officer of Health in the Laboratory of the Borough Public Health Department for Medical Practitioners and Clinics in the area.

2,364 specimens were examined during the year (725 in 1937). Private Doctors in the town can obtain a report on the bacteriological examination of a swab for Diphtheria within 24 hours on any day of the week. Nothing better can be provided anywhere.

The services of other laboratories in Lincoln, Grimsby, Sheffield and London are employed for carrying out tests for which our own laboratory is not equipped.

Public Baths.

The following attendances were recorded during 1938:—

Swimming Baths—Ordinary	51,780
Schools	15,856
Slipper Baths	12,654
Foam Baths	57
	80,347

During the year 2 clubs enjoyed regular exclusive sessions for swimming and water polo.

The swimming baths were inspected by the Medical Officer of Health on several occasions during the year. The analyses of samples of swimming bath water taken during 1938 are given in Table 13. The water was at all times found to be satisfactory.

Public Morturies.

The Scunthorpe War Memorial Hospital for an annual fee provides the use of the Hospital Mortuary to the Borough Council for the reception of bodies found dead. This mortuary was used by Police for this purpose 52 times during the year.

The Borough Council also provides and maintains a small Public Mortuary in Rowland Road for the reception of special cases such as bodies brought into the town dead of infectious disease. This mortuary was not used during 1938.

Abortions.

In last year's report mention was made of the lack of facilities in the town for the treatment of women suffering from abortion—simple or infected. Following on representations made by the Local Division of the British Medical Association financial arrangements were secured by the Lindsey County Council for the treatment of simple cases of abortion at the War Memorial Hospital and this came into effect in June, 1938. Cases of septic or complicated abortion still have to go to Doncaster for treatment. This is not satisfactory as it tends to delay the necessary hospitalisation of such cases until the condition of the patient becomes too serious for her to remain at home. The Isolation Hospital in Scunthorpe is the proper place for the treatment of this condition, and accommodation for cases for puerperal sepsis should be provided by the County Council at this Institution.

Air Raid Precautions Medical Service.

Throughout the year attention was spasmodically focussed on Air Raids Precautions with at first fragmentary and mainly theoretical results. Recruiting and training of men and women in First Aid was instituted early and the assistance and enthusiasm of the Scunthorpe Division of St. John Ambulance Brigade, whose men members enrolled en bloc, was an encouraging start.

The threat of war in September, 1938, accelerated preparations and an outline of a scheme to provide 2 fixed first aid posts (one at the hospital and one to be specially built) and 3 mobile posts (specially equipped vehicles) was submitted to the County Council and the Home Office. Trenches were hurriedly dug in convenient places and gas masks were issued to the adult populace. The unexpected urgency in that month was manifest when the Borough Council resolved "that Air Raid Precautions work takes precedence to any other Council work for the time being," and requested "the Medical Officer of Health to organise First Aid and Decontamination Centres, with full power to act and purchase."

Private commercial vehicles were earmarked as emergency ambulances. Preparations for the decontamination of materials and clothing were quickly completed at the Isolation Hospital Laundry. Recruited personnel were organised into First Aid Parties. Emergency equipment was procured and we were ready for action albeit in makeshift fashion. The "crisis" passed and in November a separate Air Raid Precautions Committee was formed to deal with the problems involved, and a successful "black-out" exercise was held to test the available resources. In December the Borough Council at its third request to the Home Office secured independence as an Air Raid Precautions "scheme making" authority free from the supervision or veto of the County Council. In the last week of the year the town was scheduled by the Ministry of Health as a "reception area" to accommodate women and children from more vulnerable towns under the Government Evacuation Scheme. The towns vulnerability was considered by the Borough Council not to justify such a scheduling and representations were made to the Ministry of Health to reconsider the matter.

Co-ordination of Medical Services.

The Medical Officer of Health for the Borough is also Assistant Medical Officer to the County Council. In the latter appointment he is Tuberculosis Officer; Venereal Diseases Medical Officer; Medical Superintendent of the County Isolation Hospital; School Medical Inspector and Anaesthetist to the School Dental Clinic. He also conducts the Diphtheria Immunisation Clinic, and is Medical Examiner of the Corporation Staff for Superannuation Act, and Director of the Corporation Air Raid Precautions Casualty Services.

These multifareous duties keep him in touch with all aspects of the Health of the townspeople. The holding of the Ante-Natal and the Child Welfare Clinics in the same premises as those in which your Medical Officer of Health works, provides for frequent exchange of opinion and mutual consultation with the County Maternity and Child Welfare Medical Officer.

The Medical Officer of Health holds office in the Local Division of the British Medical Association. This ensures active contact, cordial relations and close co-operation with the local private medical Practitioners and is of immense value to the Public Health Department and therefore to the town and its inhabitants.

The Infectious Diseases Nurse who treats cases of Ophthalmia Neonatorum in their homes under the supervision of Private Medical Practitioners, is also the nurse in the Female Venereal Diseases Treatment Centre. She is thus enabled to persuade the mothers of all known cases of Ophthalmia to come to the centre for investigation and treatment.

Consultation and Treatment Clinics. (Lindsey County Council). 1938.

Antenatal—	County Clinic, Parkinson Avenue	Thursdays, 9 a.m.—12 noon.
	Maternity Home	Tuesdays, 11 a.m.—12 noon.
Child Welfare—	County Clinic	Mondays and Thursdays, 2—4 p.m.
	Ashby, Wesleyan Hall	Tuesdays, 2—4 p.m.
Mothercraft—	County Clinic	Wednesdays, 3 p.m.
Minor Ailments in School Children	County Clinic	Daily 9 a.m.—12 noon.
Ophthalmic	do.	Thursdays, 10 a.m.
Tuberculosis	do.	Mondays, 2—4 p.m. (Women and Children) Fridays, 2—4 p.m. (Men).
Artificial Pneumothorax Treatment	do.	Thursdays 2 p.m.
Ultra Violet Ray	do.	Mondays and Thursdays, 10 a.m.—12 noon.
Venereal Troubles	do.	Male: Mornings 9-30 a.m.—12 noon Evenings 5-30—7-30 p.m. daily Monday—Saturday (except Monday morning and Wednesday evening)
		Female: Mondays 10 a.m.—12 noon Wednesdays 5—7 p.m. Intermediate treatment by appointment.
Orthopaedic	do.	1st and 3rd Tuesday in each month 2—4 p.m.
Massage	do.	1st and 3rd Tuesday in each month 2—4 p.m.
Dental	do.	By appointment. Dentist attends daily.
Heart Diseases	do.	By arrangement. Specialist attends once every 2 months.
Diphtheria Immunisation	do.	Thursdays 2-30 p.m.

The Parkinson Avenue County Clinic premises comprise under one roof, a group of well-built and well-situated clinics, abundantly used and appreciated by the local residents. This clinic, however, is too far for regular attendance oy Ashby residents and satisfactory subsidiary clinic premises in that district ought to be provided.

CANCER.

42 deaths (17 males, 25 females) were registered as due to Cancer. The following Table shows the certified incidence of fatalities from this disease during the past decade. The figures must, of course, be viewed in the light of a steadily increasing population. The figure for deaths from Cancer may be taken to represent one-third of the cases alive during that year.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Cancer ...	29	33	34	36	36	38	34	37	47	42
All causes	350	327	349	325	359	320	340	360	394	404

The County Council still have under consideration a scheme for improving the facilities for treatment by Radium and X-rays. This would have no influence on the incidence of the disease but might prolong life in early cases. Operative surgery is still the most reliable form of treatment for eradicating a cancer.

MENTAL DEFICIENCY.

Borough cases dealt with during the year :—

	Males.	Females.	Total.
In Institutions for the Mental Defective Under Order	6	12	18
On Licence from Institutions	1	0	1
Under Guardianship	0	1	1
Under Statutory Supervision	12	21	33
Reported to the Local Authority (Lindsey C.C.) as mentally defective but no action taken. (Cases not "subject to be dealt with") ...	21	23	44

VENEREAL DISEASES.

During 1938 a total of 226 new cases (147 males) attended the Lindsey County Council Clinic. This is an increase of 24 over the figure for 1937; which is probably due in large measure to the improved facilities for the treatment for men engaged in shift work made available during the year by the provision of an evening clinic and to the special advertisement of treatment facilities by the exhibition of notices in all Public Conveniences.

Of the 226 new cases 34 were cases of syphilis (27 males); 85 gonorrhoea (71 males)and 107 "non-venereal" genital disorders (58 females). 1 new case of inherited syphilis attended the clinic during the year. The total number of consultations with the clinic medical officers was 2,228 and the number of attendances for "intermediate" treatment by the nurse or orderly was 2,249.

During the year the male and female clinics were brought under the direction of the same medical officer. This should result in greater control of infecting consorts and the examination of more contacts.

All new male cases were asked to state the town in which they had acquired their infection and in a large majority of cases this had taken place outside Scunthorpe. The incidence of Venereal Diseases in Scunthorpe is comparatively low. 20 of the new venereal cases had been infected and already started treatment in some other town before coming to live or work in Scunthorpe.

The adoption of recently discovered improved remedies for gonorrhoea resulted in more rapid cure with considerable shortening of the period of infectivity more especially in males. 43 patients with frank venereal disease failed to attend the clinic to complete the treatment they needed to effect a cure. Their health will suffer later for this default.

There remained under treatment at the end of 1938, 41 cases of syphilis, 8 of gonorrhoea, and 5 non-venereal cases.

All the figures quoted above include a small number of cases living outside the Borough but attending the Scunthorpe Clinic which also serves the neighbouring districts.

579 Pathological specimens were examined during the year from patients attending the Venereal Clinic.

The large number of "non-venereal" cases treated at the clinic (and most of them rapidly cured) is a feature common to all such clinics and is due to the fact that a variety of genital disorders similar in symptomatology to the venereal disease, attend the clinic for diagnostic tests and remain for treatment because this is the only place which provides for the special treatment of these maladies.

No special propaganda was conducted during the year.

PREVALENCE AND CONTROL OF INFECTIOUS DISEASES.

Accurate figures are known for the incidence of those infectious diseases which are statutorily notifiable by Medical Practitioners. For those non-notifiable diseases such as Measles, Chicken Pox, Mumps, Infective Conjunctivitis, Whooping Cough, Influenza and the Common Cold; though sometimes serious and disabling; accurate figures for incidence are not available. An approximate estimate of the incidence of some of these conditions is obtained from Head Teachers' returns of school absenteeism.

Diphtheria was prevalent during several months of the year, with a total of 145 cases, of which 7 proved fatal mostly after removal to hospitals out of the town.

A sudden and unusual outbreak of Pneumonia during the prevalence of influenza occurred in the spring, and a special account is included in this report.

The total number of notifiable infectious disease cases during the year was 529 compared with 400 for 1937. In addition a further 537 cases were brought to the notice of the Health Department by parents and others, bringing the total of all forms of infectious disease to 1066 compared with 870 in 1937. This increase is due mainly to Measles, Pneumonia and Chicken Pox.

The incidence of primary and influenzal Pneumonia (141 cases) was the highest ever recorded.

The County and Borough Councils share the cost of providing an infectious diseases Nurse who visits all known cases at their homes to supervise isolation to advise parents and when necessary to assist in treatment. (See Table 11).

Chicken Pox.

The prevalence of this disease was high during the year. 211 cases came to the notice, of the Public Health Department. Most of the cases of which the Department becomes aware are school children, as the disease is only made compulsorily notifiable during outbreaks of Smallpox. July bore the heaviest incidence.

Cerebro Spinal Meningitis.

No case was notified.

Diphtheria.

145 cases of Diphtheria occurred during 1938 compared with 65 in 1937. 122 cases were in children under 15 years of age and 23 in persons between 15 and 65 years.

136 cases were removed to Hospital, the remainder being treated at their homes. There were 7 deaths, mostly in hospitals out of the town where cases had to be removed on account of lack of accommodation in the County Isolation Hospital.

2053 Swabs (488 in 1937) were examined in the Health Department during the year by culture and microscopy for the presence of Diphtheria bacilli.

The scheme for free immunisation of school children and children under school age in Scunthorpe was continued and another 750 children were immunised by 2 subcutaneous injections of Diphtheria toxoid (Alum precipitated), the County Council bearing the cost of toxoid. This is too small a proportion of the total number who are susceptible to show any influence on the incidence although those children who have been immunised are definitely protected. No case of Diphtheria occurred during the year in any child who had been completely immunised.

82 phials of Diphtheria Antitoxin provided by the Borough Council were issued free to private Practitioners for the early treatment of cases of Dipththeria awaiting removal to hospital.

Enteric Fever.

6 cases of para-typhoid B and 2 typhoid were notified during the year. No aetiological factor common to these cases was discovered in either disease. 3 of the Para B cases occurred in persons living outside the town but they were notified while undergoing investigation at the local General Hospital.

Encephalitis Lethargica.

No cases were notified during 1938.

Erysipelas.

22 cases were notified compared with 13 in 1937.

Measles and German Measles.

290 cases of Measles and 1 of German Measles were notified during 1938. There were 2 deaths from these diseases.

Malaria.

No case was notified.

Mumps.

54 cases were reported compared with 78 in 1937.

Ophthalmia Neonatorum.

15 cases were notified. 12 cases were visited and treated by the Infectious Diseases Nurse. Bacteriologically most of these cases were found to be free from gonococci, even when the eye discharge was most acute.

Case.	Treated at	Effect on Vision.
1	Home.	Unimpaired.
2	Hospital	Unimpaired.
3	Home.	Unimpaired.
4	Home.	Unimpaired.
5	Hospital.	Unimpaired.
6	Home	Unimpaired.
7	Home.	Unimpaired.
8	Home.	Unimpaired.
9	Hospital.	Unimpaired.
10	Home.	Left the district.
11	Home.	Unimpaired.
12	Home.	Unimpaired.
13	Home.	Unimpaired.
14	Home.	Unimpaired.
15	Home.	Unimpaired.

Pneumonia. ("Acute Primary" and "Influenzal.")

141 cases were notified during the year compared with 56 in the preceding year. A special report appears at the end of this report.

Puerperal Pyrexia.

24 notifications of Puerperal Pyrexia were received in 1938.

Puerperal Fever ceased to be a notifiable disease at the end of last year. All cases of febrile puerperium from whatever cause are now "Puerperal Pyrexia."

There were 2 deaths from puerperal sepsis.

Acute Anterior Poliomyelitis.

9 Notifications were received during 1938 during the increased prevalence of this disease throught the country. Special orthopaedic treatment for the sequelae was arranged by the County Council.

Scarlet Fever.

65 cases were notified during the year, 55 in 1937. All were mild cases. 49 were removed to Hospital for isolation.

Smallpox.

No cases occurred in the Borough in 1938.

No action was taken under the Public Health (Smallpox) Prevention Regulations, 1917.

Whooping Cough.

76 cases were notified compared with 6 in the preceding year.

TUBERCULOSIS.

Facilities for the diagnosis and supervision of cases of Tuberculosis are provided by the County Council at the Tuberculosis dispensary in Parkinson Avenue, where cases from the Borough and an area of approximately 5 miles around the town are received. Increased use of the dispensary and of the Tuberculosis Officer was made during 1938. The majority of patients seen, lived in the Borough.

Artificial Pneumothorax treatment was continued during the year.

The Dispensary serves as a "sorting house" to which suspicious cases are sent by Private Doctors for special investigation and where contacts of known cases may be examined and supervised. It also serves as a centre for the treatment by special methods of tuberculous persons who are ambulant. A large number of patients are kept under observation and examined periodically for evidence of infection. X-ray examinations are arranged and carried out mostly at the War Memorial Hospital. 273 such radiographic examinations were performed during 1938. The number increases every year and the need for an X-ray unit at the Dispensary has become a matter of urgency. The existing administrative arrangements involve a patient in 2 visits to the Dispensary and one to the Hospital, with a delay of 2 or more weeks before the X-ray result is known. The provision of an X-ray apparatus at the Dispensary would make one visit only sufficient and would considerably benefit the supervision of artificial pneumothorax cases. A carbon arc artificial sunlight apparatus for treating non-pulmonary tuberculosis would also be a beneficent provision. Sanatorium treatment is provided by the County Council at a variety of institutions mostly at considerable distance from Scunthorpe making visiting by relatives difficult so that the patient tends to become homesick and cut short his institutional treatment.

274 new cases were examined at the Scunthorpe Dispensary during the year 1938 this is an increase of 63 over the figure for the previous year. In addition 72 contacts of known cases of Tuberculosis were examined and 11 found to be suffering from the disease. This demonstrates the importance of close supervision and repeated examination of Tuberculosis family contacts in whom the incidence of infection is very much higher than in the general population. It also shows how important is the necessity for isolating cases of advanced pulmonary tuberculosis to diminish the family spread of the disease. Children and adolescent contacts are most susceptible to infection. Each new case is the result of a massive infection from some close associate. A diminution in the incidence of new cases would be more rapidly achieved if we could discover and treat the source of infection in every known case. The value of easily available X-ray examination cannot be

over-estimated in this connection. The elderly chronic purveyor of tuberculosis misses the net in the examination of family contacts for he is usually not at home when the environmental investigation takes place.

At the end of 1938 the Register of Tuberculosis for the Borough showed 179 pulmonary cases and 59 non-pulmonary cases. During the year 83 new cases were notified and there were 26 deaths. The age distribution and other details are given in Table on next page.

Most of the new lung cases seen during the year were found at their first examination to show severe involvement though in several of these, symptoms were of recent onset.

34 cases resident in the Borough received Institutional treatment during 1938 (30 adults, 4 children).

The Tuberculosis Care Committee continued to provide extra nourishment, clothes and other financial assistance to cases.

An investigation of the incidence of **domestic overcrowding** among patients of the Borough Tuberculosis Register revealed the facts that 27 patients known to be tuberculous lived in 19 of the houses which were on the overcrowding register. Of these, there were 3 patients living in each of two such registered houses; 2 cases in each of 3 others and one patient in each of the remaining 14 overcrowded houses. The total number of dwellings in the Borough known to be overcrowded in 1938 was 63 harbouring 69 families and comprising 543 persons.

The high incidence of known tuberculosis among these is surely the clearest indictment of the dangers of domestic overcrowding and a resonant call for quick re-housing of overcrowded families.

TUBERCULOSIS—1938.

Age Periods.	NEW CASES NOTIFIED.				DEATHS.			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 year ...	—	—	—	—	—	—	—	—
1— 5 years ...	—	—	3	2	—	—	1	1
5—10 years ...	2	—	—	3	—	—	—	—
10—15 years ...	1	1	2	2	1	—	—	—
15—20 years ...	2	9	—	1	—	4	—	1
20—25 years ...	4	8	1	3	2	2	1	—
25—35 years ...	5	7	2	4	6	1	—	—
35—45 years ...	7	4	—	2	2	1	—	—
45—55 years ...	1	2	—	—	2	—	—	—
55—65 years ...	1	3	—	—	1	—	—	—
65 and upwards	1	—	—	—	1	—	—	—
	24	34	8	17	14	8	2	2

5 Cases of Tuberculosis were not notified prior to death.

A Decade of Tuberculosis.

Year.	New Cases			Cases on Borough Register.		Deaths.		
	Pulmonary.	Non-Pulmonary.	Total.	Pulmonary.	Non-Pulmonary.	Pulmonary.	Non-Pulmonary.	Total.
1929 ...	37	31	68	144	102	18	4	22
1930 ...	47	21	68	177	117	17	8	25
1931 ...	42	23	65	162	99	30	10	40
1932 ...	53	13	66	174	80	21	10	31
1933 ...	41	19	60	160	72	24	6	30
1934 ...	40	20	60	155	79	26	9	35
1935 ...	31	22	53	143	83	18	8	26
1936 ...	63	20	83	177	65	15	8	23
1937 ...	67	19	86	179	69	29	3	32
1938 ...	58	25	83	179	59	22	4	26

HEALTH CONDITIONS IN CONNECTION WITH LARGE FACTORIES.

The supervision of sanitary accommodation at factories and workshops in the town is the duty of the Borough Health Department, and the standard found locally reaches the average for this type of industry. 237 inspections were carried out by the Department during the year.

The supervision of arrangements for the prevention of Health Hazards due to industrial processes is directly under control of the Home Office.

H.M. Inspector reports that there is considerable risk of Carbon Monoxide gassing owing to the large amount of blast furnace and coke-oven gas used in the manufacture of steel. Six cases of gassing occurred during the year.

Coke oven workers and tar distillers are exposed to the risk of epitheliomatous (cancerous) ulceration. In Scunthorpe such workers undergo periodic medical examination, and no cases were reported during the year.

Handling of refractory material, mainly used in furnace linings may give rise to silicosis (a dangerous lung disease).

One small factory manufacturing lagging compounds bears a risk of asbestosis (Lung disease).

In crushing and handling slag, there is a risk of lung damage due to inhalation of dust, also a risk of dermatitis, but conditions in this respect are improving. The "Foaming" of slag carries a risk of poisoning by Hydrogen Sulphide gas, but this risk is lessened by carrying on the work in the open air and by the provision of respirators.

Great care is taken at all large factories in the town to avoid accidents and elaborate and satisfactory arrangements exist in the four large steel works for the immediate treatment of injuries arising in the course of employment. A "Safety-first" Committee at each Works maintains suitable organisation to reduce the risk of accidents, and supervises the activities of the First Aid Stations established at the works. Workmen are encouraged to report even the most trivial injury for immediate treatment to avoid any risk of serious sequelae from delay or carelessness.

The table below gives figures for accidents occurring during 1938 at the 4 large steelworks in the town employing between them some 14,000 men.

Minor Accidents (chiefly skin wounds)	20,412
Major Accidents (involving loss of a week or more) ...	786
Fatal accidents	6
Hospital Cases	708

All these figures except the deaths (3 in 1937) were lower than in the previous year. In Scunthorpe, the accident frequency rate during the year was 3.35 accidents per 100,000 hours worked; an improvement of more than 20% on the previous year and lower than the average of industrial accidents for the whole country.

These figures reflect credit on the caution exercised by workmen and on the beneficent and patient activities of the Works Accident Prevention Committees.

MEDICAL INSPECTION OF SCHOOLS.

Each school in the Borough is inspected by the School Medical Officer twice a year. Five groups of children are examined at each inspection :—

1. "Entrants"—i.e. newcomers to the school since the last inspection and not previously examined.

2. "Intermediates"—Children between 8 and 9 years of age.

3. "Leavers"—Children over 12 years of age who have not been examined since attaining their twelfth birthday.

4. "Specials"—Cases brought forward for examination at any age at the request of Parent, Teacher, Nurse or child.

5. "Revisions"—Those children who at a previous inspection were found to manifest some defect.

Ophthalmic cases and defects of the Ear, Nose and Throat, Bones and Joints, Teeth and Heart are referred to the County Council's specialists in these subjects. Other cases are referred to Private family Doctors or to the Clinic.

During the year the special clinic for the advice and observation of cases of Worms and of Enuresis was continued.

A treatment clinic for minor ailments such as discharging ears, impetigo and scabies is open every day.

In addition to the medical examination of scholars, each school is subjected to a hygienic survey and defects reported for attention. Most of the schools in the Borough are very satisfactory in this respect. There are still several schools without hot water for washing and I think it would be advisable to replace the linen roller towels by individual paper towels so as to limit infection and inculcate a more personal hygiene.

The structure of part of Ashby Infants and of Santon School is primitive.

In the main the health of the school children of Scunthorpe is good; more especially is this true of the secondary school children. Nutrition is very satisfactory. Of 1712 children inspected during the year the nutrition of 6% was "slightly sub-normal" and of only ½% "bad."

The commonest defects found at medical inspection requiring attention are Chronic Tonsillitis, Defective Vision and Bad Teeth. There was an increase in the incidence of Scabies.

5% of school children examined were found to have defective vision.

There is no **nursery school** in the Borough.

There is no **"Open-air School"** in the Borough. Such a school is very desirable, to accommodate those "delicate" children who apart from a possible need of the physiological stimulus of the "open-air" cannot withstand the rough and tumble of their more sturdy school fellows. They are the children who at play time in an ordinary school, are seen motionless, pale and frightened at the periphery of the moving throng, afraid to join in the general hubbub. Such children need quieter surroundings and school fellows and a gentler rate of educational progress.

The employment of school children usually in delivering newspapers before and after school hours, is an unsatisfactory form of child labour. I think it is undesirable that school children should be allowed to rush through an early morning breakfast in order to be able to deliver papers at 7-30 a.m. in all weathers, or that they should have to reach home, have tea and get to the paper shop in the half-hour between 4 p.m. and 4-30 p.m. The fault rests on those parents who are prepared to sacrifice a school child's leisure, comfort and freedom in order to add 3/6 per week to the household income. 21 children were examined as to fitness for after-school employment. In two cases permission was refused.

The following notifications of **infectious disease in school children** were received during 1938 from all sources:—

Diphtheria	106	Scarlet Fever	37
Pneumonia	2	Whooping Cough	67
Measles	248	German Measles	1
Chicken Pox	155	Mumps	56
Poliomyelitis	8	Paratyphoid B	1

School Clinic in 1938 was attended by 883 children who made 8,421 attendances.

The commonest conditions appearing for advice or treatment were: Impetigo 267 cases, Miscellaneous 373, Eyes 72, Other skin disease 42, Nose and throat 66, Discharging Ear 32, Scabies 39. Ringworm body 7, Ringworm scalp 3.

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EPIDEMIC PNEUMONIA IN A SETTING OF CLINICAL INFLUENZA

THE SCUNTHORPE OUTBREAK IN 1938

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MEDICAL OFFICER OF HEALTH TO THE BOROUGH OF SCUNTHORPE

VARIOUS epidemiologists, notably the late Sir William Hamer and the late F. G. Crookshank, held that epidemic influenza was but an item, a very important item, in a coördinated series of events. In the Ministry of Health's report on the pandemic influenza of 1918–19 attention was directed to severe local outbreaks of pneumonia, such as those at Northallerton in 1887 and at Middlesbrough in 1888, which seemed to fit in with Hamer's doctrine and perhaps formed part of what he called the "setting" of an influenza period. An extensive epidemic of pneumonia preceded by an outbreak of influenza was recorded by Smillie, Warnock, and White (1938), affecting 100 cases in an institution of 3000 persons and due to a type—I pneumococcus. Even those not prepared to go so far as Hamer would agree that unexpected outbreaks of respiratory epidemic disease always deserve notice. They may prove to be pointers to some important change. For these reasons a brief account of an outbreak in the borough of Scunthorpe should be of interest.

The official returns show a remarkable increase in the numbers of notifications of primary and influenzal pneumonia in England and Wales in the third week of April, 1938. In the week ending April 23, 1938, the number of notifications (1218) was half as big again as in the previous week (856) and 20 per cent. above the normal level for the time of year. Notifications continued at this high level (some 1200 weekly) for almost a month. In the week ending May 21, in which there were 1339 notifications, the excess above the normal figure was as much as 46 per cent. There was, however, no coincident or subsequent increase of deaths ascribed to influenza of any significance; but in some districts, particularly Scunthorpe, the position caused anxiety, for during three months in

TABLE I—MONTHLY INCIDENCE OF PNEUMONIA NOTIFICATIONS IN THE BOROUGH OF SCUNTHORPE

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for year	R.G. estimated mid-year population	Deaths from all causes	Deaths from "influenza"
1927	2	18	20	8	6	7	5	4	—	10	1	2	83	33,050	321	19
1928	1	1	1	3	2	1	1	1	1	2	1	3	18	31,660	238	6
1929	5	6	24	3	4	1	8	5	1	3	5	4	69	31,880	350	44
1930	5	8	6	9	9	8	6	2	2	1	7	6	69	31,880	327	10
1931	—	15	20	7	6	11	4	3	3	3	2	2	76	33,990*	349	26
1932	14	14	6	5	6	3	1	—	2	5	4	3	63	34,190	325	15
1933	8	17	7	9	5	3	2	3	2	3	2	5	66	34,590	359	20
1934	7	7	1	4	3	—	—	—	6	1	—	1	30	35,710	320	3
1935	3	2	2	9	1	3	—	2	2	3	1	3	31	37,170	340	5
1936	3	5	4	3	4	3	1	1	—	3	2	2	31	38,740	360	10
1937	15	8	3	1	1	1	6	2	3	2	4	10	56	40,270	394	19
1938	6	4	6	21	48	13	10	2	5	10	8	8	141	42,000	404	22

* Census figure.

this small isolated industrial town of 42,000 inhabitants there were notified as many cases of primary and influenzal pneumonia as in the rest of the country among a population of 382,000. Table I summarises the general position in 1938 and in each of the previous eleven years 1927–37. In the two months April and May, 1938, 69 cases of pneumonia were notified, and in June 13—an appreciably larger number than in any of the eleven preceding years, although these included three years (1927, 1929, and 1933) of widespread influenza. In each of these years of influenza and in 1931 and 1932, when the national death-rate from influenza was also rather high, the prevalence of pneumonia in the borough lay in the winter months, January to March. There is nothing comparable in this series of years to the outbreak in the spring of 1938.

TABLE II—WEEKLY INCIDENCE OF NOTIFICATIONS OF "PRIMARY AND INFLUENZAL" PNEUMONIA IN THE SCUNTHORPE OUTBREAK

1938: Week ending	Notifications	1938: Week ending	Notifications
April 2	2	May 28	6
,, 9	2	June 4	7
,, 16	7	,, 11	2
,, 23	10	,, 18	3
,, 30	15	,, 25	1
May 7	14		
,, 14	7		
,, 21	7	Total	83

Table II shows the weekly incidence of notifications in this epidemic and table III the age-incidence and sex-incidence for the whole outbreak. Some of these rates are based on small numbers. There is an indication of a heavier attack-rate in males than females between the ages of 25 and 60, but, owing to the small absolute numbers, no great weight can be attached to this. There were 10 deaths, giving a case-mortality of 12 per cent.—a moderately severe outbreak. With a duration of thirteen weeks and the population at risk in Scunthorpe 42,000 persons, the equivalent quarterly incidence for the whole population of England and Wales should have been more than 83,000 cases. The expected number for that period was 13,058 and the actual number 13,766.

CLINICAL PICTURE

The "*influenza*" *cases*—i.e., without pneumonia—developed chiefly in adults. There was no great

increase in school absenteeism during the period of the epidemic except among the school teachers. The condition appeared to be highly contagious, many households producing multiple cases. Occasionally an infected household contained one member or more with pneumonia while others had uncomplicated "influenza." In a maternity home employing 19 nurses and 7 maids, the number of staff affected by "influenza" was 9 nurses and 1 maid, in the following order :—

April 21	3 cases	April 25	2 cases
,, 23	1 case	,, 28	1 case
,, 24	3 cases		

The last case to occur was a relief nurse brought in from outside to nurse sick members of the staff. She fell ill with "influenza" on the third day after entering the institution. This and other contact cases pointed to an incubation period of three days.

The onset was sudden, with shivering, generalised aching, cough, hoarseness, and blood-stained mucous sputum. One doctor described these cases as "severe acute bronchitis with blood-stained sputum." Some cases showed loss of taste sensibility, which persisted up to three weeks. In the early stages these patients felt ill and looked ill. Recovery usually took place after six to fourteen days.

The "*pneumonia*" *cases* usually showed signs of pulmonary consolidation three to eight days after premonitory "influenzal" symptoms. The consolidation was usually lobar, most commonly in one lower lobe, sometimes bilateral, and often accompanied by a pleural effusion of clear fluid. Unilateral thoracic pain commonly heralded the onset of consolidation, and blood-stained sputum was common. Bacteriological examination of the sputum usually showed pneumococci, sometimes accompanied by *Streptococcus viridans* or *Hæmophilus influenzæ* (Pfeiffer). Temperature was high, about 102° F., but fell gradually to normal by about the eighth day. Most patients were fully recovered in three weeks. In fatal cases death usually took place within a week of onset. One patient developed pneumonia after nursing a child with uncomplicated "influenza."

EPIDEMIOLOGY

To get some idea of the association between the pneumonia cases and those of uncomplicated influenza I sent questionnaires to all those patients who had been notified as pneumonia, to learn what other

TABLE III—SCUNTHORPE PNEUMONIA-RATES (1938)
(Based on R.G.'s population-figure for 1937)

Age-group	MALES				FEMALES			
	Cases	Deaths	Estimated population	Pneumonia-rate per 10,000	Cases	Deaths	Estimated population	Pneumonia-rate per 10,000
0–5	2	0	1829	10·9	3	1	1797	16·7
5–15	7	0	3985	17·6	7	0	4026	17·4
15–25	10	1	3696	27·1	9	2	3505	25·7
25–40	14	1	5020	27·9	6	0	4792	12·5
40–60	13	3	4592	28·3	6	1	4183	14·3
60	3	0	1434	20·9	3	1	1411	21·3
Total	49	5	20,556	23·8	34	5	19,714	17·2

members of the household had been affected by influenza. From the replies I gathered that of 53 unrelated persons suffering from "primary pneumonia" 10 produced contact families involving 18 cases of "influenza." Returns from four large steel works in the borough employing most of the local adults showed a 25 per cent. increase in the weekly sickness-rate during the weeks of pneumonia incidence. This, in conjunction with the prevailing medical practitioners' diagnosis of "influenza," is taken as strong evidence of the existence of an influenzal background or "setting" to the pneumonia outbreak.

In view of the absence of serological evidence of influenza virus I thought that we might here be dealing with a virus of lower or different antigenic value. I made inquiries of local pig farmers to discover if there had been a concurrent epizootic of swine influenza. Only one farmer could produce accurate records, and these do suggest a coincident pig morbidity (table IV).

VIRUS INFLUENZA

Stuart-Harris et al. (1938) give good reasons for distinguishing between influenza due to a virus infection and clinically similar diseases which they suggest should be called "acute upper respiratory catarrh." Elkeles (1934) has shown by experimental work on the influenzas of swine and man that the virus of

epidemic human disease is transmissible to pigs and vice versa, although the two viruses are serologically distinct. Also, in each case, but more so in swine, the virus disease is clinically much more severe if *H. influenzæ* accompanies the infecting filtrable virus. Shope (1936) concluded that in human influenza any one of many pathogenic micro-organisms can act in combination with influenza virus to cause a more severe illness than would be produced by virus alone. This may explain the state of affairs in Scunthorpe, where many people were ill with an infectious condition clinically diagnosed as "influenza," whereas only a proportion of them developed pneumonia.

In general one might associate virus infection with dispersiveness, but the connexion may not be inevitable. It therefore seemed desirable to ascertain whether in this outbreak virus could be implicated. Sir Patrick Laidlaw and Dr. Andrewes kindly undertook the laboratory investigation by virus-neutralisation tests against mice. I supplied them with ten sera from 2 convalescent cases of influenzal pneumonia, 4 convalescent cases of uncomplicated "influenza," and 4 controls from Scunthorpe residents who had no recent history or influenzal infection. The antibody content of all sera was found to be at

TABLE IV—SICKNESS IN SWINE AT SCUNTHORPE (1938)

Week ending Saturday	Pigs ill	Pigs died	Total of pigs in stock	Humans on farm* affected by "flu"
April 9	—	—	1241	—
,, 16	1	—	1328	—
,, 23	—	—	1301	1
,, 30	—	—	1301	1
May 7	3	1	1158	2
,, 14	5	2	1021	1
,, 21	4	2	1278	1
,, 28	2	—	1380	2
June 4	1	1	1263	1
,, 11	—	1	1213	—
,, 18	1	—	1213	—
,, 25	—	—	1213	—

* Farm employed 21 men.

such low levels that no serological evidence was obtained that influenza virus had been involved. In other words, this outbreak cannot be regarded as one of epidemic influenza, if, as suggested by Stuart-Harris et al. (1938), that name should only be used when the part played by virus has been demonstrated serologically in convalescents or by the infectivity to ferrets or mice of garglings or nasal washings from acute cases.

The cause of this rather striking outbreak remains unsolved. The increase of notifications of pneumonia in the country as a whole and some newspaper reports suggest that April–June, 1938, was epidemiologically abnormal. Perhaps the late Sir William Hamer would have regarded it as part of the setting of a general influenza. We are left to contemplate the possibility of an "influenza" due to a virus which does not produce antibodies to Laidlaw's virus and does not infect ferrets and mice but which, in combination with ordinary pathogenic bronchial organisms, produces a high pneumonia morbidity.

SUMMARY

A localised outbreak of acute upper respiratory catarrh, serologically distinct from ferret-pathogenic virus influenza and with unusually high incidence of severe pneumonia, in the spring of 1938 in the borough of Scunthorpe is described, and its epidemiological significance is discussed.

My thanks are due to Sir Patrick Laidlaw, F.R.S., for testing sera and to Prof. Major Greenwood for his assistance in the preparation of this paper. To the medical practitioners of Scunthorpe I owe thanks for their coöperation in gathering clinical data.

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The Lancet Office,
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HEALTH EDUCATION.

The attention and interest of school children and the general public in matters of health was maintained during the year by the distribution of a local edition of "Better Health," a monthly journal published by the Central Council for Health Education in which a full page article of topical hygienic interest contributed by your Medical Officer or some other member of the Health Department.

Wide interest was shown in the town in this journal which cost the Corporation nothing, the expense of publication being defrayed by advertisement revenue.

A large number of posters drawing attention to various health matters were exhibited in all parts of the town throughout the year.

From October, 1937 to March, 1938, the Health Department entered enthusiastically into the "National Campaign to Encourage the Use of the Health Services "directed by the Ministry of Health, who provided posters, folders, leaflets and other publications for display and distribution to bring to the notice of the public the facilities available for promoting health and checking ill-health. "Healthway Code," a booklet setting out details of the medical and preventive services in the town was published by the Health Department and distributed to every house in the Borough.

There can be no doubt that the regular visitation by the Sanitary Staff, Nurses and Health Visitors, of food shops, markets, slaughterhouses, offices and private dwellings constitutes Health Education of the most penetrating and valuable kind.

The mere trumpeting of information on preventive medicine and the ways and means of personal hygiene and well being, can do nothing of itself to prevent disease or to safeguard health unless it be understood, accepted and practised. The knowledge of how to avoid disease or to improve health must filter to all sections of the community; it must arrest the attention of the individual and parent and create in him a desire to know and an urge to act on his knowledge.

ATMOSPHERIC POLLUTION.

During the year a special investigation into the state of the atmosphere of Scunthorpe was undertaken in conjunction with the Department of Scientific and Industrial Research of the Home Office. Three stations were established, at Britannia Corner, Brumby and Santon, at each of which were exposed a standard rain-water deposit gauge; a lead peroxide cylinder and a microscope glass slide.

The **deposit gauge** collects dust and rainwater on a measured area and this deposit is examined chemically. The findings (tabulated on another page) give an indication of the amount of dust falling in a particular area and indicate the nature of the sources from which it comes. In reading the tabulated results the following notes on the components measured may be helpful.

Tar—this includes the heavy hyrdocarbons given off in the early stages of heating of wood or coal. These tarry matters condensing on surfaces (windows, curtains and woodwork) soil them and facilitate the fixation of other particulate matter.

Carbonaceous matter other than tar—fine particles of fuel which escape unaltered or partly carbonised with chimney gases.

Ash—this matter composed of burned clay and silicates from combustion of coal or disintegrating surfaces of building materials, or fragments of mineral matter from roasted ores and crushed slag.

Sulphates are derived almost entirely from the combustion of fuel and from the projection of coal ash into the air.

Chlorine of chlorides—comes from hydrochloric acid given off during combustion of coal of which it is a constituent, and is an important source of nuclei round which raindrops are formed.

Ammonia is produced in relatively large amounts in the distillation of coal which accompanies combustion. What is not retained in the chimney as sulphate or chloride in association with soot, escapes with smoke into the air as crystals of these salts or as the free gas.

Lead Peroxide Cylinder. This measures the "activity" of atmospheric sulphur dioxide at the point of observation irrespective of the direction from which the pollution comes. It provides a measure of the extent to which sulphur gases combine with the surfaces with which they come into contact.

Microscope slides collect particulate dust deposit which can be photographed and examined microscopically. Pictures of such deposits are included in this report. They demonstrate graphically the difference in density of deposit at different stations.

The importance of the investigation lies in the fact that Scunthorpe is a site of increasing industrial activity of such a nature as to produce tangible atmospheric pollution, which in the Borough portion of Santon has become sufficient to render that district unfit for normal healthy habitation. T. McLachlan, F.I.C., writing in "The Engineer" (July 7th, 1939) reviewing atmospheric pollution investigations during the previous year says "there can be little doubt that the enormous deposit at Santon, Scunthorpe, arises almost entirely from the local steelworks and one feels that much of this could be eliminated."

The criteria for adequate air conditions include the comfort of the individual, his psychological and physiological reactions to the atmospheric conditions and his freedom from pathological tissue change due to atmospheric damaging agents. Foul air increases the incidence of respiratory disease. Steel production by the present processes involving the combustion of large amounts of coal runs parallel with respiratory morbidity. So that in essence the accusing finger of atmospheric pollution points at the inefficient burning of coal in industrial furnaces, in coke ovens and even in the domestic grate. Slag dust and the fumes and noxious gases of local industrial processes take their share in the measurable atmospheric contaminants which by their absorption of sunshine, obstruction to light and their pollution of curtains, windows and buildings, are a menace to health and amenity. Grit lies thick on the doorsteps and backyards of Santon where an open window is a rarity and an invitation to the entry of contiguous industrial smoke and gases.

In his report to the Council on the choice of suitable trees and shrubs for the projected Central Park, the consultant Horticulturist pointed out that the nature of local atmospheric pollution limited to some extent the range of available plants which would thrive in the district. Ordinances exist only against dense or visible smoke emitted for measurable periods, while the iron and steel industry enjoys immunity by section 109, Public Health Act, 1936, from any action under this Act for smoke nuisance. This hinders the Local Authority from taking steps against the chief culprits responsible for pollution of the town's air. It is left to the goodwill and engineering ingenuity of those responsible for the iron and steelworks of the town to effect a progressive reduction in smoke and gas liberation.

We have got pure water and good drainage, clean streets and modern houses. Now we must purify the air.

ATMOSPHERIC POLLUTION, 1938.

BRITANNIA CORNER. (Centre of Town—135 feet above Ordnance Datum) Deposit Gauge findings.

Month.	Rainfall collected. m.m.	Figures in tons per sq. mile.								
		Insoluble matter.			Soluble matter.		Total solids.	Included in soluble matter.		
		Tar.	Carbonaceous other than tar.	Ash.	Loss on ignition.	Ash.		Sulphates SO3.	Chlorine Cl.	Ammonia NH3.
April	6.05	0.33	3.88	9.23	3.16	5.85	22.45	1.26	1.31	0.07
May	73.60	0.33	7.92	16.94	5.34	9.32	39.85	2.84	1.49	0.11
June	49.09	0.22	3.71	8.89	3.63	6.05	22.50	2.24	1.29	0.10
July	93.96	0.10	6.10	0.62	4.16	7.73	18.71	2.74	1.27	0.02
August	108.00	0.19	4.05	8.12	6.11	9.03	27.50	3.74	1.49	0.18
Sept.	39.96	0.14	2.50	4.09	3.71	8.10	18.54	3.65	1.05	0.09
October	75.28	0.38	3.82	8.96	2.51	4.18	19.85	1.34	1.35	0.17
Nov.	55.20	0.51	3.16	7.42	3.05	5.01	19.15	2.08	1.76	0.27
Dec.	105.60	0.25	2.78	5.72	6.43	8.90	24.08	5.33	2.92	0.18

ATMOSPHERIC POLLUTION, 1938.

ISOLATION HOSPITAL. (2,000 yards from centre of town—117 feet above O.D.)

Month.	Rainfall collected. m.m.	Figures in tons per sq. mile.								
		Insoluble matter.			Soluble matter.		Total solids.	Included in soluble matter.		
		Tar.	Carbonaceous other than tar.	Ash.	Loss on ignition.	Ash.		Sulphates SO3.	Chlorine Cl.	Ammonia NH3.
April	6.38	0.10	2.03	8.91	1.61	4.11	16.76	1.64	0.92	0.003
May	73.86	0.24	3.88	11.58	3.31	7.21	26.22	2.45	1.31	0.007
June	42.41	0.13	2.77	4.03	1.56	3.00	11.49	0.79	1.05	0.03
July	101.00	0.03	2.34	2.58	1.42	3.32	9.69	1.01	0.62	0.10
August	105.20	0.07	3.31	7.96	2.79	7.39	21.52	2.17	0.56	0.18
Sept.	61.13	0.07	2.56	3.65	7.35	4.76	18.39	3.86	2.19	0.09
October	72.81	0.04	2.80	2.56	3.15	5.23	13.78	3.00	1.59	0.16
Nov.	65.46	0.12	2.18	1.90	5.71	8.02	17.93	3.61	2.65	0.22
Dec.	116.40	0.09	2.04	3.90	6.79	12.04	24.86	4.07	3.01	0.20

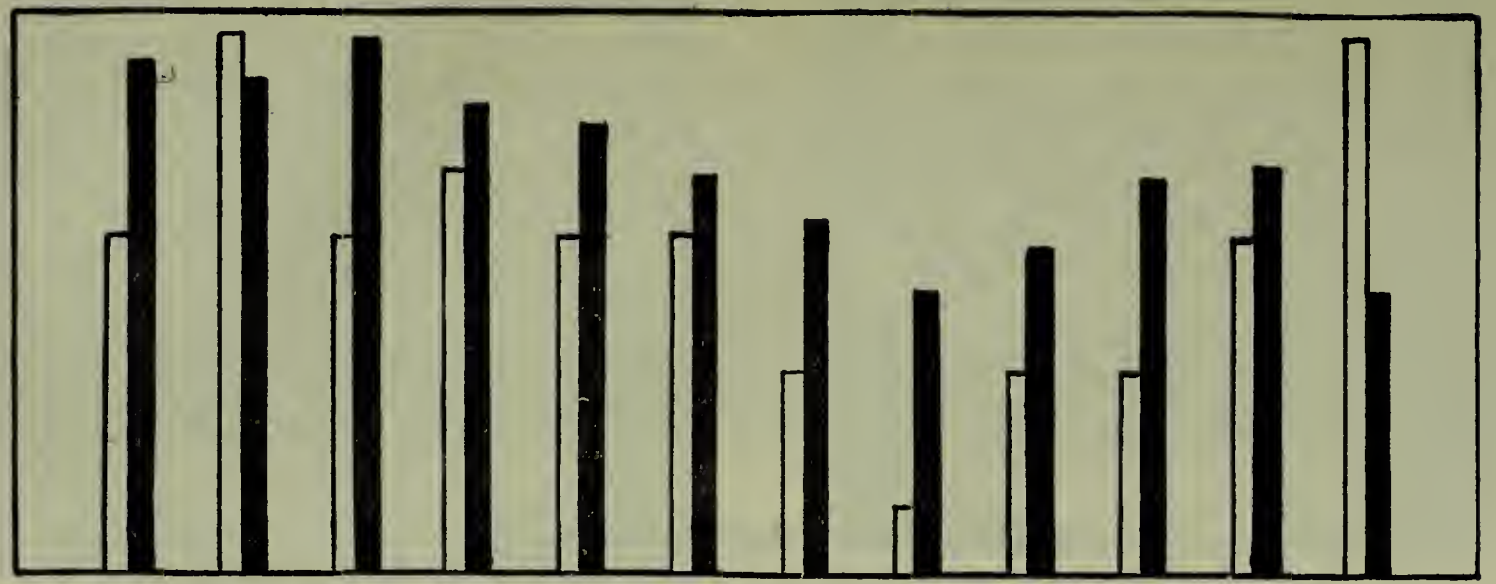
ATMOSPHERIC POLLUTION, 1938.

SANTON. (3,666 yards from centre of town—61 feet above O.D.)

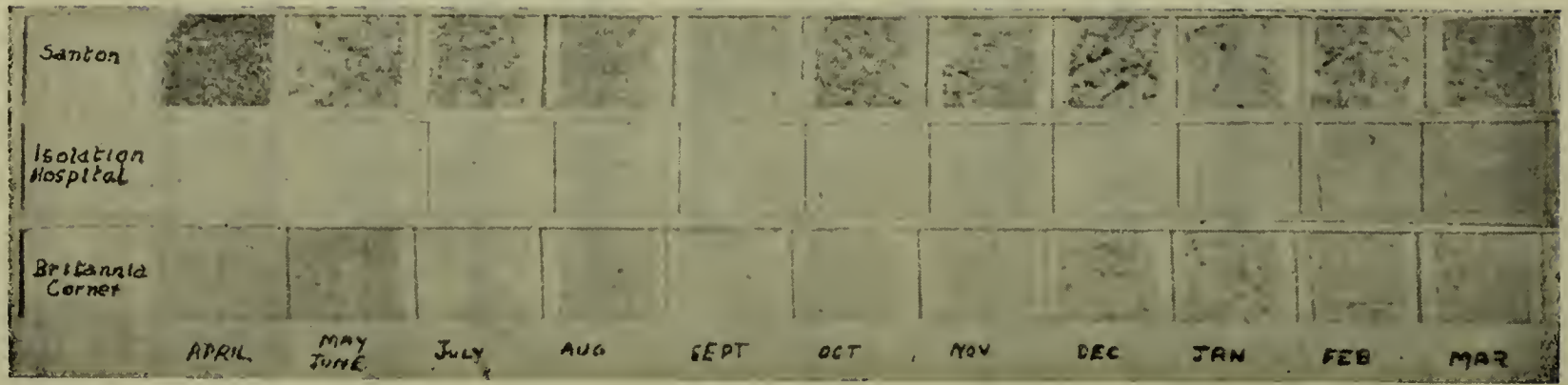
Month.	Rainfall collected. m.m.	Figures in tons per sq. mile.								
		Insoluble matter.			Soluble matter.			Included in soluble matter.		
		Tar.	Carbonaceous other than tar.	Ash.	Loss on ignition.	Ash.	Total solids.	Sulphates SO3.	Chlorine Cl.	Ammonia NH3.
April	4.75	0.21	54.24	410.4	2.12	17.63	484.6	8.47	1.60	0.003
May	33.56	0.59	35.18	92.45	4.07	13.53	145.8	5.31	1.03	0.12
June	26.11	0.15	24.29	76.45	2.50	9.18	112.6	3.31	0.79	0.10
July *	43.53	0.14	19.40	57.10	2.09	6.27	85.00	4.70	1.20	0.07
August	76.28	6.04	45.74	125.20	8.92	27.04	212.9	11.52	2.40	0.19
Sept.	50.26	0.02	19.19	59.54	3.08	18.74	100.6	7.79	1.69	0.08
October	65.96	0.28	9.72	68.63	7.10	19.05	104.8	8.08	2.94	0.41
Nov.	22.47	0.44	23.69	28.81	5.22	18.30	76.46	8.18	30.1	0.20
Dec.	94.98	0.07	25.74	70.71	11.64	70.71	138.0	14.71	4.54	0.21

* 15th—31st July only.

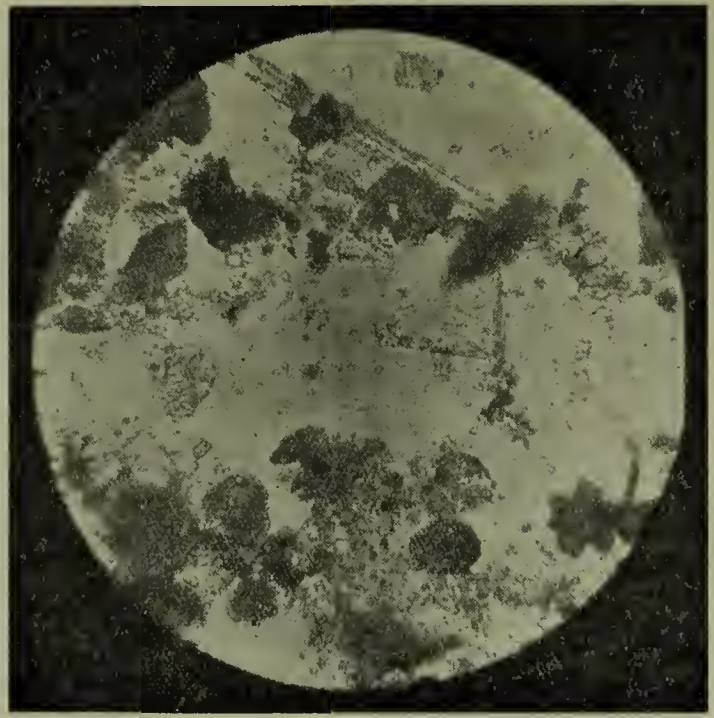
RESPIRATORY DEATHS: STEEL PRODUCTION, 1938.



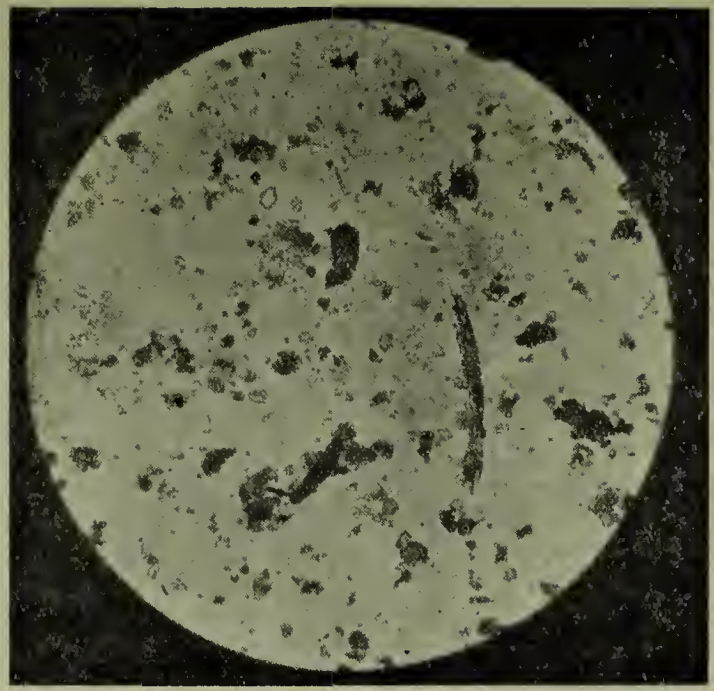
ATMOSPHERIC POLLUTION.



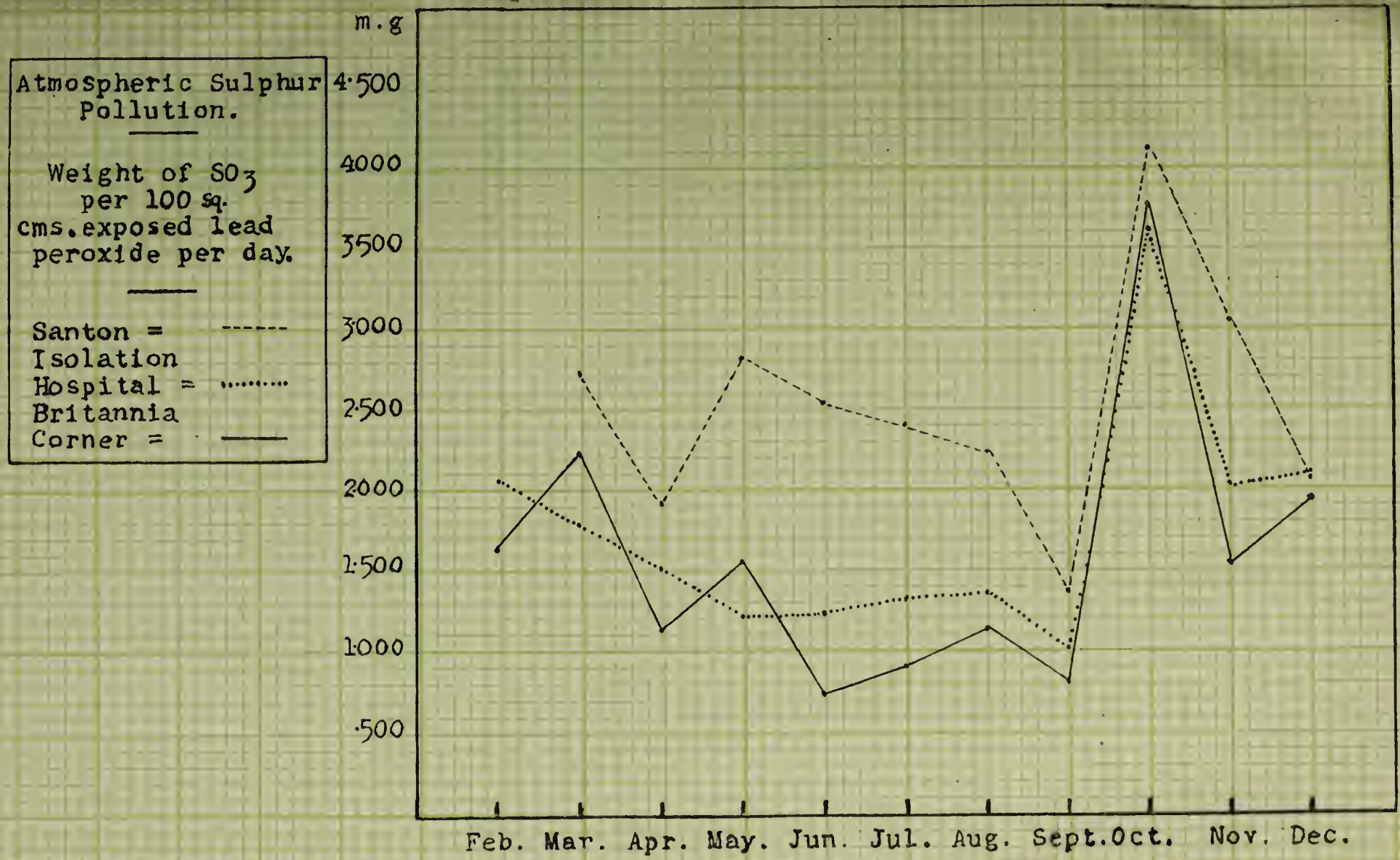
Photograph of dust deposited monthly on dry glass slides at observation stations.



Microscopic appearance of Deposit on dry slide, Britannia Corner, February.

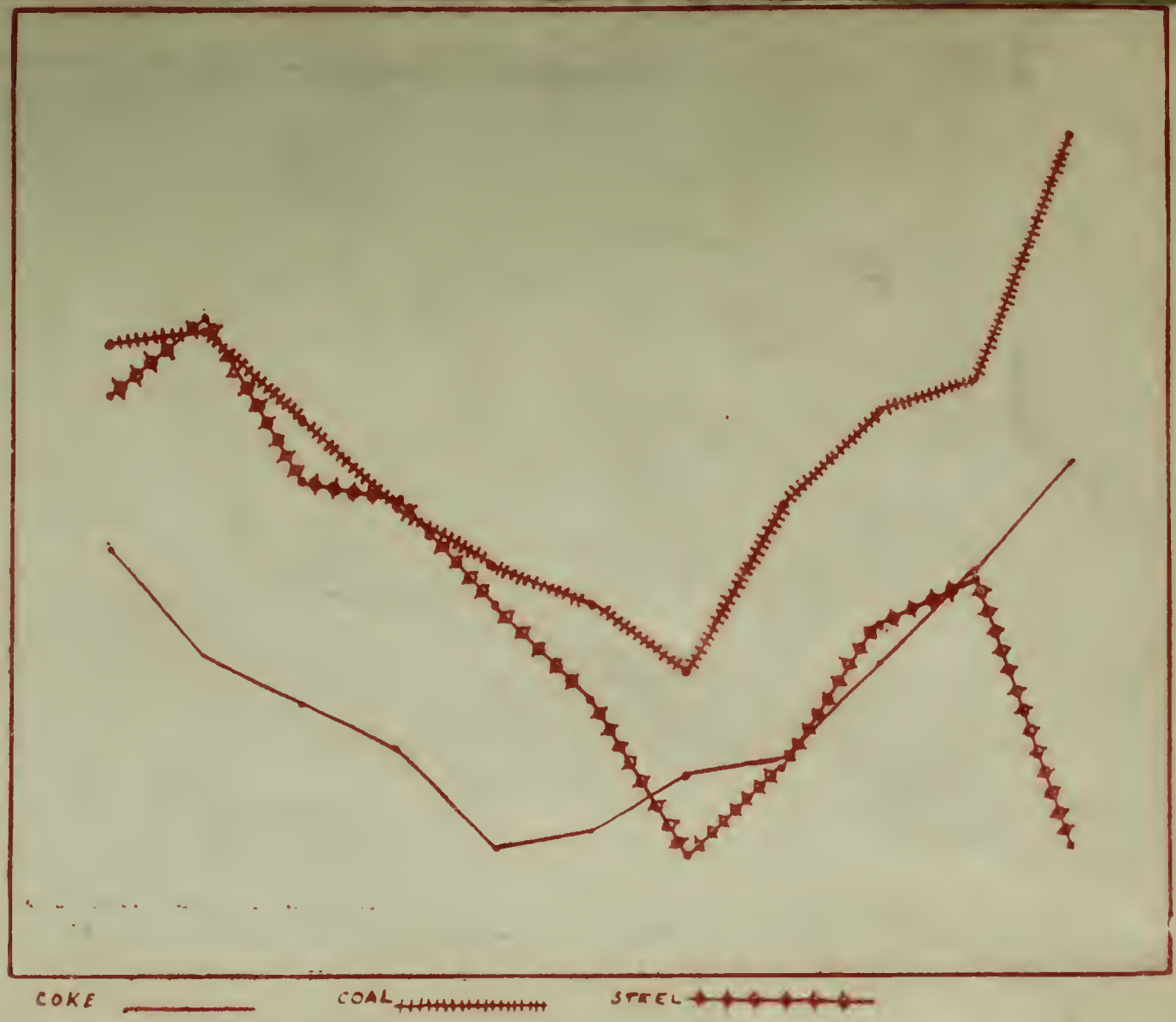


Microscopic appearance of Deposit on dry slide, Britannia Corner, March.

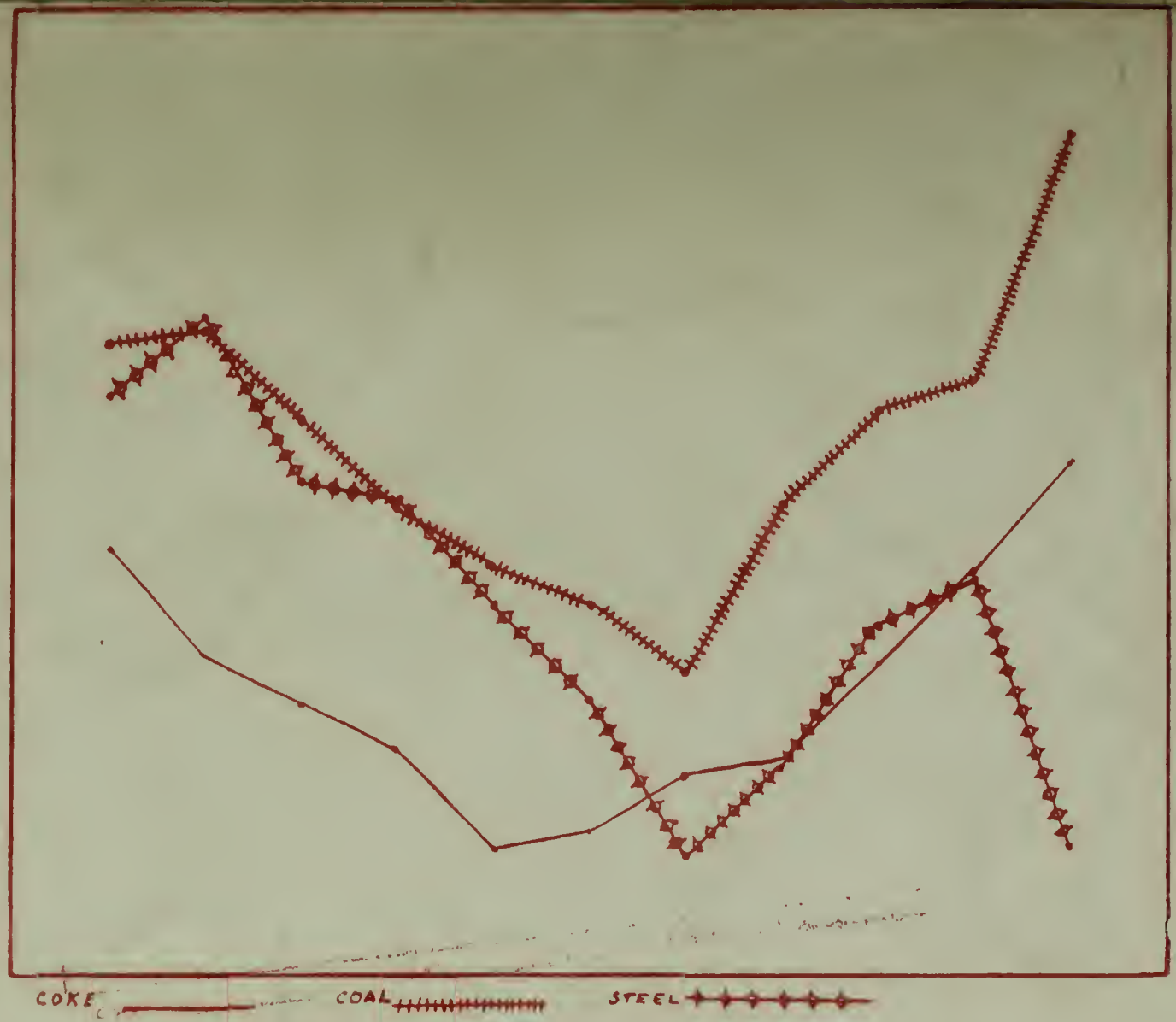

Atmospheric Sulphur Pollution.
Weight of SO_3 per 100 sq. cms. exposed lead peroxide per day.
Santon = ------
Isolation Hospital = ...
Britannia Corner = ——
m.g
4·500
4000
3500
3000
2·500
2000
1·500
1·000
·500
Feb. Mar. Apr. May. Jun. Jul. Aug. Sept. Oct. Nov. Dec.

STEEL (in Tons)	COAL (in Tons)	COKE (in Tons)
140,000	4,500	450
130,000	4,000	400
120,000	3,500	350
110,000	3,000	300
100,000	2,500	250
90,000	2,000	200
80,000	1,500	150
70,000	1,000	100
60,000	500	50

Domestic Use of COKE (in Tons)	Use of COAL (in Tons)	Output of STEEL (in Tons)
450	4,500	140,000
400	4,000	130,000
350	3,500	120,000
300	3,000	110,000
250	2,500	100,000
200	2,000	90,000
150	1,500	80,000
100	1,000	70,000
50	500	60,000



of COKE (in Tons)	of COAL (in Tons)	of STEEL (in Tons)
450	4,500	140,000
400	4,000	130,000
350	3,500	120,000
300	3,000	110,000
250	2,500	100,000
200	2,000	90,000
150	1,500	80,000
100	1,000	70,000
50	500	60,000



COKE
COAL
STEEL
50
100
150
200
250
300
350
400
450
500
1,000
1,500
2,000
2,500
3,000
3,500
4,000
4,500
40,000
50,000
60,000
70,000
80,000
90,000
100,000
110,000
120,000
130,000
140,000
COKE (tons)
COAL (tons)
STEEL (tons)

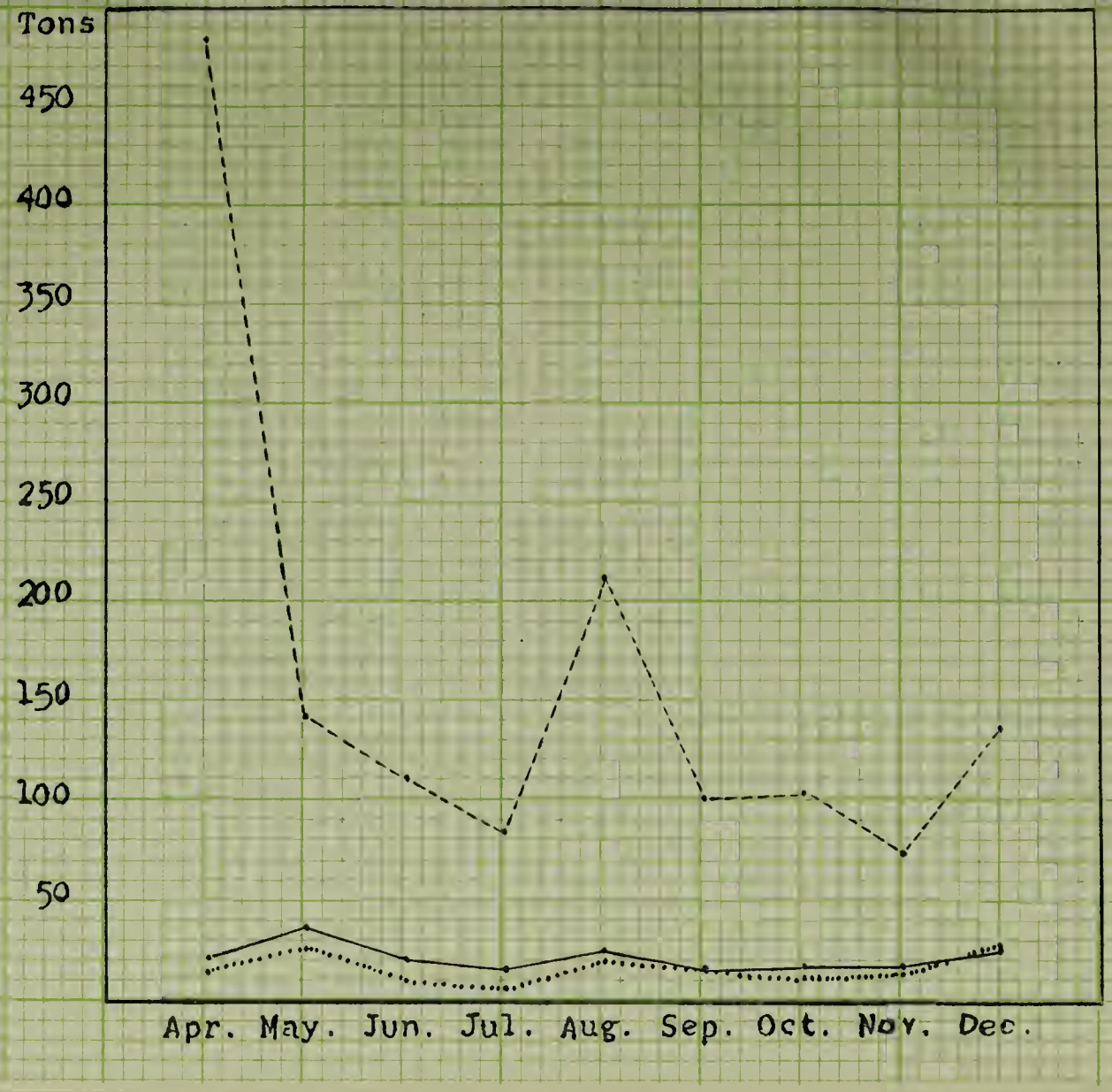
Total Solids collected English Tons per sq. mile.

Santon = ------

Britannia Corner = ——

Isolation Hospital = ...

Note: July Santon figure refers to 15th.-31st only.



STATISTICS OF WHOLE DISTRICT SINCE 1921 (FIRST YEAR OF COMPLETE RECORDS).

Year.	Population estimated to middle of each year.	Area in Acres.	Density (persons per Acre).	No. of inhabited houses	BIRTHS		DEATHS				Notified Infectious Disease.	Deaths from all Lung Diseases.	Notifications of Tuberculosis.	Deaths from Cancer.
							Under 1 year of age.		At all ages.					
					No:	Rate/ 1,000.	No:	Rate 1,000 Live Births	No:	Rate/ 1,000				
1921	27,790	7,961	3.49	5,531	906	32.6	77	86.0	308	11.0	391	62	79	18
1922	28,530	7,961	3.58	5,989	729	25.5	69	94.6	278	9.7	187	83	57	18
1923	29,420	7,961	3.69	6,048	725	24.6	55	75.8	293	9.9	523	89	104	32
1924	30,970	7,961	3.89	6,195	786	23.6	62	78.0	324	10.4	837	87	91	24
1925	31,430	7,961	3.94	6,287	743	23.6	55	74.0	274	8.7	456	73	80	24
1926	32,820	7,961	4.12	6,457	678	20.6	31	45.0	268	8.2	509	56	81	30
1927	33,050	7.895	4.18	6,731	606	18.3	47	77.0	321	9.7	797	73	83	25
1928	31,660	7,895	4.01	6,866	648	20.5	25	38.0	238	7.5	593	33	57	24
1929	31,880	7,895	4.03	7,167	651	20.4	39	60.0	350	10.9	893	73	68	29
1930	31,880	7,895	4.03	7,450	732	22.9	44	60.0	327	10.2	853	63	68	33
1931	33,990	7,895	4.30	7,548	616	18.1	51	83.0	349	10.2	431	80	65	34
1932	34,190	7,895	4.33	7,815	591	17.3	43	73.0	325	9.5	853	40	66	36
1933	34,590	7,895	4.38	8,178	553	15.9	33	59.0	359	10.4	261	56	60	36
1934	35,710	7,895	4.52	8,568	591	16.5	36	61.0	320	8.9	237	55	60	38
1935	37,710	7,895	4.70	9,671	750	20.1	38	51.0	340	9.1	597	54	53	34
1936	38,740	7,895	4.90	9,970	712	18.3	40	56.1	360	9.2	377	55	83	37
1937	40,270	7,895	5.10	10,143	812	20.2	38	46.8	394	9.8	400	69	86	47
1938	42,000	7,895	5.20	11,688	853	20.3	29	33.9	404	9.6	529	63	83	42

(NOTE:—Measles and German Measles were notifiable only during years 1924-1937).

Chickenpox was notifiable on different occasions during prevalence of Smallpox.

VITAL STATISTICS 1938. Ward Distribution.

Wards.	Area in Acres.	Estimated Population	No. of inhabited houses.	Density of Population. (Persons per acre).	Birth Rate.	Death Rate.	Infant Death Rate.	Notifications of infectious disease by Doctors.	Notifications of Pneumonia (Primary and Influenzal).	Death Rate from Bronchitis and Pneumonia.	Notifications of Tuberculosis (all forms).	Death Rate from Pulmonary Tuberculosis.	Death Rate from Non-Pulmonary Tuberculosis.
Park	932.5	6300	1735	6.76	23.2	8.2	47.9	111	22	1.11	15	0.79	0.16
Crosby	1543.4	4360	1204	2.82	14.2	9.8	16.1	34	10	0.92	8	—	0.46
East	503.1	3370	837	6.70	22.8	16.9	51.9	59	26	2.66	10	0.59	0.59
Town	105.2	4380	1207	41.63	15.7	11.4	14.5	56	26	1.59	8	0.45	0.23
West	437.7	5710	1666	13.04	15.6	7.9	44.9	45	11	0.87	8	0.70	0.17
Brumby	1242.4	5250	1522	4.22	26.2	8.0	35.4	88	9	0.95	8	0.57	—
Frodingham	1527.0	6260	1766	4.10	24.9	11.7	19.2	80	30	1.59	15	0.32	—
Ashby	1603.7	6370	1751	3.97	21.9	10.0	35.4	56	11	1.25	10	0.15	0.15
Total	7895	42000	11688	5.32	20.3	9.6	33.9	529	145	1.31	82	0.45	0.19

Estimated Population of 1938 by Extrapolation from 1931 Census.

Age Group.	Males.	Females.	Persons.
0—5	1880	1849	3729
5—10	2114	2092	4206
10—15	2025	2147	4172
15—20	2004	1922	3926
20—35	5562	5231	10793
35—45	3048	2859	5907
45—65	3956	3579	7535
65 and over	847	885	1732
	21436	20564	42000

Figures obtained by House to House Census, July, 1938.

Age.	Persons.
0—1	842
1—2	879
2—3	758
3—4	708
4—5	658
5—6	646
6—7	682
7—8	674
8—9	731
9—10	703
10—11	686
11—12	703
12—13	727
13—14	722

METEOROLOGICAL RECORDS, 1938.

Month.	Barometer. Max.	Barometer. Min.	Thermometer. Max.	Thermometer. Min.	Rainfall inches.
January	30.2	28.7	65°F.	29°F.	1.73 on 18 days
February	30.4	29.0	65°F.	29°F.	1.15 on 8 days
March	30.4	29.5	73°F.	30°F.	.25 on 3 days
April	30.6	29.8	70°F.	31°F.	.21 on 4 days
May	30.2	29.2	71°F.	29°F.	3.16 on 14 days
June	30.2	29.1	77°F.	44°F.	1.82 on 12 days
July	30.0	29.4	81°F.	47°F.	4.08 on 15 days
August	30.4	29.4	84°F.	48°F.	3.98 on 11 days
September ...	30.2	29.4	76°F.	40°F.	2.31 on 17 days
October	30.0	28.6	65°F.	34°F.	3.05 on 17 days
November ...	30.4	28.4	63°F.	31°F.	2.30 on 20 days
December ...	30.2	28.8	55°F.	24°F.	3.89 on 21 days

COMPARATIVE STATISTICS FOR THE YEAR 1938.

(The mortality rates for England and Wales refer to the whole population but for London and the towns to civilians only).

—	RATE PER 1,000 POPULATION.		ANNUAL DEATH-RATE PER 1,000 POPULATION									RATE PER 1,000 LIVE BIRTHS	
	Live Births	Still Births	All Causes	Typhoid and Para-typhoid fevers	Small-pox	Measles	Scarlet Fever	Whooping cough	Diphtheria	Influenza	Violence	Diarrhœa and Enteritis (under 2 years)	Total Deaths under 1 year
England and Wales -	15·1	0·60	11·6	0·00	—	0·04	0·01	0·03	0·07	0·11	0·00	5·5	58
London - - - - -	13·4	0·48	11·4	0·00	—	0·06	0·01	0·03	0·05	0·06	0·00	13·1	57
126 County Boroughs and Great Towns, including London.	15·0	0·65	11·7	0·00	—	0·05	0·01	0·03	0·07	0·10	0·00	7·8	67
148 Smaller Towns (Estimated Resident Populations 25,000 to 50,000 at Census 1931).	15·4	0·60	11·0	0·00	—	0·03	0·01	0·02	0·08	0·11	0·00	3·6	51
Scunthorpe - - - -	20·3	1·02	9·6	0·00	—	0·04	0·00	0·04	0·18	0·52	0·00	1·1	33·9

		Puerperal Sepsis	Others	Total
The maternal mortality rates for England and Wales are as follows :	per 1,000 Live Births ...	0·89	2·19	3·08
	,, ,, Total Births ...	0·86	2·11	2·97
,, ,, ,, ,, ,, Scunthorpe :	per 1,000 Live Births ...	2·33	0·00	2·33
	,, ,, Total Births ...	2·33	0·00	2·33

Table 1.

BIRTHS IN BOROUGH OF SCUNTHORPE.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Total Births	651	732	616	591	553	591	750	712	812	853
Rate per 1,000 of population	20.4	22.9	18.1	17.3	15.9	16.5	20.1	18.3	20.2	20.3
Rate per 1,000 of other towns of population of 25,000 to 50,000	16.0	16.2	15.6	15.4	14.5	15.0	14.8	15.0	15.3	15.4
Rate per 1,000 (England and Wales) ...	16.3	16.3	15.8	15.3	14.4	14.8	14.7	14.8	14.9	15.1

1938 BIRTHS—WARD DISTRIBUTION.

	Male.	Female.	Total.	Rate per 1,000.
Park	83	63	146	23.2
Crosby	32	30	62	14.2
East	47	30	77	22.8
Town	36	33	69	15.7
West	40	49	89	15.6
Brumby	53	60	113	26.2
Frodingham	90	66	156	24.9
Ashby	65	76	141	21.9
	446	407	853	20.3

1938 ILLEGITIMATE BIRTHS—WARD DISTRIBUTION.

	Male.	Female.	Total.	Rate per 1,000.
Park	5	1	6	0.95
Crosby	1	3	4	0.92
East	2	3	5	0.67
Town	1	4	5	1.14
West	1	3	4	0.70
Brumby	1	—	1	0.18
Frodingham	3	1	4	0.64
Ashby	1	2	3	0.47
	15	17	32	0.76

Table 2.

DEATHS IN BOROUGH OF SCUNTHORPE.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Total Deaths	350	327	349	325	359	320	340	360	394	404
Rate per 1,000 of population	10.9	10.2	10.2	9.5	10.4	8.9	9.1	9.2	9.8	9.6
Rate per 1,000 of other towns of population of 25,000 to 50,000	12.3	10.5	11.3	10.8	11.0	11.3	11.2	11.5	11.9	11.0
Rate per 1,000 (England and Wales) ...	13.4	11.4	12.3	12.0	12.3	11.8	11.7	12.1	12.4	11.6

1938 DEATHS—WARD DISTRIBUTION.

	Male.	Female.	Total.	Rate per 1,000.
Park	31	21	52	8.2
Crosby	27	16	43	9.8
East	33	24	57	16.9
Town	29	21	50	11.4
West	25	20	45	7.9
Brumby	20	22	42	8.0
Frodingham	31	19	50	11.7
Ashby	35	30	65	10.0
	231	173	404	9.6

	M.	F.
Deaths of Infants under 1 year:—		
Total	17	12
Illegitimate	1	—
Total Births	446	407
Legitimate	431	390
Illegitimate	15	17
Stillbirths:—		
Total	22	21
Legitimate	22	18
Illegitimate	—	3

Table 3.

REGISTRAR-GENERAL'S FIGURES FOR CAUSES OF DEATH DURING 1938.

	Males.	Females.	Total.
Measles	2	—	2
Whooping Cough	1	1	2
Diphtheria	4	3	7
Influenza	12	10	22
Tuberculosis of the Respiratory System ...	14	8	22
Other Tuberculous Diseases	2	2	4
Syphilis	2	—	2
Cancer	17	25	42
Diabetes	3	4	7
Cerebral Haemorrhage, etc.	15	13	28
Heart Disease	62	42	104
Aneurism	1	1	2
Other Circulatory Diseases	4	5	9
Bronchitis	6	5	11
Pneumonia	17	9	26
Other Respiratory Diseases	1	3	4
Peptic Ulcer	—	1	1
Diarrhoea (under 2 years)	—	1	1
Appendicitis	1	—	1
Cirrhosis of Liver	1	1	2
Other Digestive Diseases	2	5	7
Acute and Chronic Nephritis	6	3	9
Puerperal Sepsis	—	2	2
Congenital Debility and Malformation. Premature Birth	10	8	18
Senility	5	4	9
Suicide	5	—	5
Other Deaths from Violence	26	5	31
Poliomyelitis	1	—	1
Other defined Diseases	11	12	23
	231	173	404

PERCENTAGE OF TOTAL DEATHS—SCUNTHORPE.

Total Deaths certified by General Practitioners	90.3%
Inquests	5.7%
Coroner's Certification (No Inquest)	2.5%
Uncertified Deaths	1.5%

Table 4.

ANALYSIS OF DEATHS ACCORDING TO AGE.

Causes of Death.	All ages		0—1		1—2		2—5		5—15		15—25		25—45		45—65		65—75		75 and over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Measles	2	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	1	1	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	4	3	—	—	—	—	1	1	3	2	—	—	—	—	—	—	—	—	—	—
Influenza	12	10	—	—	—	—	—	1	—	—	1	2	2	1	8	3	1	—	—	3
Tuberculosis of Respiratory System	14	8	—	—	—	—	—	—	1	—	2	6	8	2	2	—	1	—	—	—
Other Tuberculous Diseases ...	2	2	—	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—
Syphilis	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—
Cancer	17	25	—	—	—	—	—	—	1	—	—	—	—	2	9	15	6	5	1	3
Diabetes	3	4	—	—	—	—	—	—	—	—	—	—	—	1	2	—	1	3	—	—
Cerebral Haemorrhage, etc. ...	15	13	—	—	—	—	—	—	—	—	—	—	—	—	4	3	7	5	4	5
Heart Disease	62	42	—	—	—	—	—	—	3	1	1	—	1	2	11	11	28	12	18	16
Aneurism	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—
Other Circulatory Diseases... ...	4	5	—	—	—	—	—	—	—	—	—	—	1	1	1	2	1	1	1	1
Bronchitis	6	5	—	—	—	—	—	—	—	—	—	—	1	1	3	—	1	1	1	3
Pneumonia	17	9	4	2	1	3	—	2	—	—	—	—	2	1	8	—	—	—	2	1
Other Respiratory Diseases ...	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	2
Peptic Ulcer	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Diarrhoea (under 2 years)	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Appendicitis	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Cirrhosis of Liver	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
Other Digestive Diseases	2	5	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	2	1	2
Acute and Chronic Nephritis ...	6	3	—	—	—	—	—	—	—	—	—	1	1	1	3	1	2	—	—	—
Puerperal Sepsis	—	2	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Congenital Debility and Malformation. Premature Birth	10	8	10	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senility	5	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	4	3
Suicide	5	—	—	—	—	—	—	—	—	—	—	—	2	—	3	—	—	—	—	—
Other Deaths from Violence ...	26	5	—	—	1	—	—	—	3	1	6	—	6	—	4	2	3	1	3	1
Poliomyelitis	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Other defined Diseases	11	12	2	1	—	2	1	—	1	1	—	2	2	3	2	1	2	1	1	1
	231	173	17	12	5	6	2	5	13	5	11	14	27	16	62	40	58	34	36	41
Total ...	404		29		11		7		18		25		43		102		92		77	

Table 5.

ANALYSIS OF CAUSES OF INFANT DEATHS DURING 1938.

Cause of Death	Sex	Under 1 wk.	1-2 wks	2-3 wks	3-4 wks	Total under 4 weeks.	1-3 mths.	3-6 mths.	6-9 mths.	9-12 mths.	Total deaths under 1 yr.
Convulsions ...	M	—	—	—	—	—	—	—	—	—	—
	F	1	—	—	—	1	—	—	—	—	1
Bronchitis ...	M	—	—	—	—	—	—	—	—	—	—
	F	1	—	—	—	1	—	—	—	—	1
Pneumonia ...	M	—	—	—	—	—	—	1	1	2	4
	F	—	—	—	—	—	1	—	—	1	2
Hydrocephalus ...	M	—	1	—	—	1	—	—	—	—	1
	F	—	—	—	—	—	—	—	—	—	—
Atelectasis ...	M	1	—	—	—	1	—	—	—	—	1
	F	2	1	—	—	3	—	—	—	—	3
Congenital Malformations	M	1	—	—	—	1	—	—	1	—	2
	F	1	—	—	—	1	—	—	1	—	2
Premature Birth	M	5	—	—	—	5	1	—	—	—	6
	F	2	—	—	—	2	—	—	—	—	2
Atrophy, Debility and Marasmus	M	1	—	—	—	1	—	—	—	—	1
	F	1	—	—	—	1	—	—	—	—	1
Other Causes ...	M	2	—	—	—	2	—	—	—	—	2
	F	—	—	—	—	—	—	—	—	—	—
Males		10	1	—	—	11	1	1	2	2	17
Females		8	1	—	—	9	1	—	1	1	12
Grand Totals		18	2	—	—	20	2	1	3	3	29

Table 6.

DECENIUM OF INFANT MORTALITY—RATE PER 1,000 BIRTHS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Scunthorpe ...	60.0	60.0	83.0	73.0	59.6	60.9	50.6	56.1	46.8	33.9
148 smaller towns England and Wales, population 25,000 to 50,000	69	55	62	58	56	53	55	55	55	51
England & Wales	74	60	66	65	64	59	57	59	58	53

INFANT MORTALITY (WARD DISTRIBUTION) 1938.

Ward.	Males.	Females.	Total.
Park	4 ...	3 ...	7
Crosby	1 ...	— ...	1
East	2 ...	2 ...	4
Town	1 ...	— ...	1
West	1 ...	3 ...	4
Brumby	1 ...	3 ...	4
Frodingham	2 ...	1 ...	3
Ashby	5 ...	— ...	5
Total Infant Deaths	17 ...	12 ...	29

Table 7.

SHOWING THE NUMBERS OF INFECTIOUS DISEASES NOTIFIED BY MEDICAL PRACTITIONERS FROM 1929 TO 1938.

Disease	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Smallpox	1	—	3	—	—	—	—	—	—	—
Diphtheria (including Membraneous Croup)	36	57	26	16	14	27	38	21	85	145
Erysipelas	22	32	12	28	26	13	26	18	13	22
Scarlet Fever	388	229	28	41	55	65	87	55	55	65
Typhoid	2	—	1	—	—	—	1	—	—	2
Paratyphoid Fever	2	—	—	—	—	—	1	—	5	6
Puerperal Fever ...	—	1	4	6	8	7	10	4	3	—
Puerperal Pyrexia..	18	10	5	12	4	3	5	7	19	24
Poliomyelitis	—	4	—	2	—	—	2	—	1	9
Pulmonary Tuberculosis	37	47	42	53	41	40	31	63	67	58
Other forms of Tuberculosis	31	21	23	13	19	20	22	20	19	25
Ophthalmia Neonatorum	1	9	7	10	3	6	3	8	6	15
Measles	207	144	93	421	11	21	337	134	86	17
Encephalitis Lethargica	2	—	5	1	—	1	2	—	—	—
Malaria	1	1	—	—	—	—	—	—	—	—
Pneumonia	69	69	76	63	66	30	31	31	56	141
Chickenpox	67	218	105	182	12	2	—	7	4	—
German Measles ...	10	1	—	4	—	1	—	9	—	—
Bacillary Dysentery	—	10	—	—	—	—	—	—	—	—
Cerebro Spinal Meningitis	—	—	1	1	2	—	1	—	1	—
Polio Encephalitis..	—	—	—	—	—	1	—	—	—	—
Totals ...	893	583	431	853	261	237	597	377	400	529

NOTE:—Measles and German Measles were notifiable only from 1923 to June, 1937.

Table 8.

INFECTIOUS DISEASES NOTIFIED BY DOCTORS, 1938.

DISEASE.	AGE INCIDENCE.													WARD INCIDENCE.								
	0—1	1—2	2—3	3—4	4—5	5—10	10—15	15—20	20—35	35—45	45—65	65 and over	Total	Park	Crosby	East	Town	West	Brumby	Frodingham	Ashby	Cases removed to Hospital
Scarlet Fever	—	2	3	4	3	31	10	4	6	2	—	—	65	27	6	4	5	5	6	8	4	48
Diphtheria	—	3	5	6	7	68	39	9	11	3	—	—	151	57	7	9	11	15	20	8	24	145
Pulmonary Tuberculosis	—	—	—	—	—	2	2	12	28	15	8	—	67	9	6	9	7	6	7	12	11	—
Non-Pulmonary Tuberculosis	—	4	1	—	—	4	4	3	12	2	—	—	30	7	1	2	4	5	2	5	4	—
Erysipelas	—	—	—	—	—	—	—	—	4	5	8	5	22	5	—	2	2	2	2	4	5	3
Pneumonia	2	4	11	3	2	21	4	10	37	18	28	3	143	21	13	24	28	9	8	29	11	15
Ophthalmia Neonatorum	15	—	—	—	—	—	—	—	—	—	—	—	15	3	2	1	—	—	1	6	2	3
Puerperal Pyrexia	—	—	—	—	—	—	—	3	17	3	—	—	23	5	1	5	3	3	3	3	—	14
Poliomyelitis	—	1	—	—	—	4	4	—	—	—	—	—	9	1	2	1	1	—	1	3	—	9
Paratyphoid B	—	—	—	—	1	1	—	—	1	2	1	—	6	2	—	2	—	—	—	2	—	5
Typhoid	—	—	—	—	—	—	1	—	1	—	—	—	2	—	—	—	—	1	—	—	1	2
Measles	—	3	2	5	3	3	—	—	—	—	—	—	16	4	—	1	5	1	4	1	—	2

Table 9.

TOTAL MONTHLY INCIDENCE OF ALL KNOWN CASES OF INFECTIOUS DISEASE.

Month	Diphtheria	Measles	Pneumonia	Scarlet Fever	Chickenpox	Erysipelas	Puerperal Pyrexia	Mumps	German Measles	Ophth. Neon	Whooping Cough	Polio Myelitis	Typhoid Fever	Paratyphoid Fever	Discharging Eyes	Total
Jan.	20	—	6	5	8	3	—	—	—	—	4	—	1	—	—	47
Feb.	30	—	4	2	26	—	—	—	—	1	9	—	1	—	—	73
March	4	5	6	1	27	1	2	—	—	—	2	—	—	—	—	50
April	7	—	21	10	10	3	2	1	—	1	4	—	—	—	—	59
May	11	7	46	9	9	2	3	1	—	3	1	—	—	—	—	92
June	15	95	13	8	18	2	2	2	—	1	4	—	—	6	—	166
July	14	177	11	1	87	1	1	—	—	2	2	—	—	—	1	297
August	10	5	2	7	—	2	—	—	1	1	—	1	—	—	2	31
Sept.	3	1	5	6	—	2	2	2	—	1	6	—	—	—	1	29
Oct.	8	—	10	6	8	4	5	3	—	1	2	5	—	—	1	53
Nov.	19	—	8	5	6	—	4	20	—	1	19	3	—	—	—	85
Dec.	4	—	9	5	12	2	3	25	—	1	23	—	—	—	—	84
Totals	145	290	141	65	211	22	24	54	1	15	76	9	2	6	5	1066

Table 10.

INFECTIOUS DISEASE—SCHOOL DISTRIBUTION.

SCHOOL.	Scarlet Fever.	Diphtheria.	Measles.	German Measles.	Whooping Cough.	Pneumonia.	Mumps.	Chickenpox.	Poliomyelitis.	Typhoid.	Paratyphoid B.
Crosby Boys	2	1	2	—	—	—	1	—	1	—	—
Crosby Girls	—	1	4	—	2	—	1	7	—	—	—
Crosby Infants	3	1	89	—	20	1	32	19	—	—	—
Henderson Avenue Junior	9	15	1	—	—	1	1	9	1	—	—
Henderson Avenue Infants	8	20	18	1	6	2	—	43	1	—	—
Gurnell Street Boys	1	3	—	—	—	—	2	1	—	—	—
Gurnell Street Girls	2	4	—	—	—	—	—	—	1	—	—
Gurnell Street Infants	4	1	17	—	4	—	—	51	—	—	—
Doncaster Road Boys	1	5	—	—	—	—	—	1	1	—	—
Doncaster Road Girls	—	9	1	—	2	—	—	—	—	—	—
Frodingham Junior	3	—	—	—	—	—	—	4	1	—	—
Frodingham Infants	2	1	57	—	5	—	1	3	—	—	1
Brumby Boys	—	5	—	—	—	—	1	—	1	—	—
Ashby Girls	—	3	—	—	3	—	—	—	—	1	—
Ashby Junior Mixed	1	4	—	—	2	—	1	1	—	—	—
Ashby Infants	2	20	—	—	15	—	1	3	—	—	—
Santon Terrace	—	—	—	—	—	—	—	—	—	—	—
Modern School	1	2	—	—	—	—	—	—	—	—	—
Grammar School	—	1	—	—	—	—	—	—	—	—	—

Table 11.

INFECTIOUS DISEASES NURSES' VISITS, 1938.

	No. of cases visited.	No. of visits paid.
Scarlet Fever	65	155
Ophthalmia Neonatorum	15	34
Pneumonia	141	—
Diphtheria	145	358
Erysipelas	22	76
Whooping Cough	76	173
Chickenpox	211	448
Measles	290	498
Mumps	54	107
Puerperal Pyrexia	24	29
Discharging Eyes	5	56
Paratyphoid B.	6	13
Typhoid	2	12
Poliomyelitis	9	24
Queries, observations, contacts	453	839
Total ...	1518	3118

Table 12.

LABORATORY WORK.

Specimens examined in the Public Health Department :—

	1934	1935	1936	1937	1938
For Diphtheria Bacilli	154	348	213	488	2053
For Tubercle Bacilli	18	15	53	47	69
For Venereal Diseases	—	—	53	181	207
Hairs for fungi	—	—	1	—	—
For streptococci	—	—	2	—	—
Other examinations	2	8	11	9	35
	174	371	333	725	2364

Specimens sent away for examination :—

	1934	1935	1936	1937	1938
For Venereal Diseaes (from Doctors and Clinic)	466	570	501	540	448
For Widal Reaction	1	2	2	6	20
Cerebro Spinal Fluid	—	3	2	—	1
Faeces for dysentery bacilli	—	—	1	—	2
Urine for B. coli	—	—	1	—	—
For Tubercle Bacilli (T.B. Dispensary)	81	83	85	169	242
Faeces for Enteric Bacilli	1	—	—	—	14
For Diphtheria Virulence	—	5	—	—	10
Milks	40	60	24	31	73
Drinking Waters (sent by Health Dept.)	—	2	—	6	111
Swimming Bath Water	—	—	—	2	7
	589	725	616	754	928

Table 13.

Analyses of Public Swimming Bath Water.

Date of Sampling.	22.1.38.	22.1.38.	16.5.38.	16.5.38.	24.8.38.	24.8.38.	26.10.38.
Where taken	Large Pool.	Large Pool.	Large Pool.	Juvenile Pool.	Juvenile Pool.	Large Pool.	Juvenile Pool.
Total Solids	74.9	74.5			86	71.4	100
Combined Chlorine	12.45	12.35	9.5	9.0	13.5	13.5	13.0
Free Chlorine	.008	.01					
Equivalent to Sodium Chloride			15.67	14.85	22.27	22.27	21.4
Nitric Nitrogen (Nitrites)	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Nitrous Nitrogen (Nitrates)	.38	.38	0.01	0.01	Present	Present	Nil
Ammoniacal Nitrogen	Nil	Nil	0.004	0.0046	0.0005	0.0008	Trace
Albuminoid Nitrogen	.009	.010	0.0057	0.0064	0.002	0.0024	0.0018
Oxygen absorbed at 27° C.							
in 15 minutes	.012	.011					
in 4 hours	.029	.028	0.03	0.03	0.17	0.056	0.17
Poisonous Metals	Absent	Absent					
Number of Bacteria per c.c.							
On agar in 48 hrs. at 22° C.			78	1892	408	105	11
On agar in 48 hrs. at 37° C.			183	863	156	98	5
Bacillus Coli in 150 c.c.			Absent	Absent	Absent	Absent	Absent
Bacillus Welchii in 10 c.c.			Absent	Absent	Absent	Absent	Absent
REPORT	Chemically satisfactory	Chemically satisfactory	A very good bath water	A good bath water	A good bath water with free chlorine above normal for district water	A good bath water with free chlorine above normal for district water	A satisfactory water

Information contributed by Mr. W. Farrar, Borough Engineer and Surveyor.

PARKS, OPEN SPACES AND RECREATION GROUNDS.

(a) **Belonging to Corporation:—**

		Area. Acres.
Central Park Site		29.228
Sheffield Park		11.0
Manor Park		5.0
Jubilee Playing Field		7.166
West of Crosby Housing Estate		13.65
Between Doncaster Road and the Trunk Road		9.42
Between the Trunk Road nad Scotter Road:		
(a) Woodland	17.25	
(b) Open Space	3.92	21.17
Town Hall Site (provisionally)		6.5
Britannia Corner		0.167
Winterton Road; when available		3.44
The Circle, Henderson Avenue		2.744
		109.485

(b) **Others:—**

J. Lysaght Ltd., Normanby Road		21.889
Scunthorpe Co-operative Society Employees, Brumby Wood Lane		12.885
Employees of Appleby-Frodingham Steel Co. Ltd. & Firth & Brown Ltd., Ashby Road		35.81
R. Thomas & Co. Ltd.:		
(a) Cricket Ground, Rowland Road	3.592	
(b) Sports Field, Cemetery Road	11.300	14.892
		85.176

HOUSING.

Total Number of new houses erected during 1938:—

(1) By Local Authority	50
(2) By other Local Authorities	nil
(3) By other Bodies or Persons	723
	773

Ward Distribution of the new houses erected in 1938 :—

Ward	By Local Authority	By Other Bodies or Persons	Totals
Park Ward	50	60	110
Crosby Ward	nil	1	1
West Ward	nil	221	221
Town Ward	nil	nil	nil
East Ward	nil	nil	nil
Brumby Ward	nil	92	92
Frodingham Ward	nil	123	123
Ashby Ward	nil	226	226
	50	723	773

Number of Houses (a. Parlour, b. Non-Parlour) erected during 1938 without Exchequer Grant under the Housing Acts (included in the above) :—

	Parlour	Non-Parlour	Total
(1) By the Local Authority :			
(a) for the purposes of Part V of the Housing Act, 1936 ...	nil	50	50
(b) for the purposes of Part IV of the Housing Act, 1936, (abatement of overcrowding)	nil	nil	nil
	nil	50	50
(2) By other Bodies or Persons	nil	nil	nil

Number of Houses (a. Parlour, b. Non-Parlour) erected during 1938 with Exchequer Grant under the Housing Acts (included in the above) :—

	Parlour	Non-Parlour	Total
(1) By the Local Authority :			
(a) for the purpose of Part II of the Act of 1925	nil	nil	nil
(b) for the purpose of Part III of the Act of 1925	nil	nil	nil
(c) to relieve overcrowding ...	nil	nil	nil
(2) By other Bodies or Persons	nil	nil	nil

Future Intentions with reference to Municipal Housing.

The scheme which was in progress in 1937 for the erection (by Contract) of 50 houses on the Crosby Housing Estate under the 1936 Act, without State Assistance, has been completed, 34 being erected in 1937 and the remaining 16 in 1938.

A further scheme for the erection (by Contract) of 66 houses on the Crosby Housing Estate under the 1936 Act, without State Assistance, is in progress, and of these 34 were completed during 1938 and the remainder are in course of erection.

A scheme for 30 houses under the 1936 Act on the same estate, for the relief of overcrowding, has received the approval of the Ministry, and the erection of these houses is in progress, by Contract.

The Council have also made application to the Ministry of Health for approval to the erection of a further 30 houses together with the necessary roads and sewers, on the Crosby Housing Estate, without State Assistance, and these proposed 30 houses will complete the development of the land forming this particular estate.

The Five Year Programme of Capital Works, submitted by the Council to the Ministry of Health in October, 1938, included the provision of 500 houses under the Housing Acts, made up as follows: — (a) the above-mentioned two schemes of 66 and 30 houses now in progress, (b) the scheme for 30 at present before the Ministry for approval, (c) 186 on a site on Ashby Road at Old Brumby already acquired for the purpose by the Council, (d) 68 on a site at Bottesford Road, Ashby, which has been similarly acquired, and (e) 120 on a site or sites yet to be acquired.

RIVERS AND STREAMS.

Bottesford Beck.

Bottesford Beck is the only stream of importance in the area. It drains water from the Ironstone Mines, and receives sewage effluents from the Sewage Works of the Corporation and effluents from the various Iron and Steel Works.

The Beck is a "Main River" and comes under the direct control of the Trent Catchment Board.

Pollution of Streams in the area and any action taken to check this.

The Council have no knowledge of any pollution of the streams nor has any complaint been received from the Court of Sewers, Catchment Board or other source.

SEWERAGE AND SEWAGE DISPOSAL

Particulars of any extension of sewerage (situation, length, size) during 1938.

During 1938, 9,375 lineal yards of new sewers were laid in various parts of the Borough.

These sewer extensions comprised:—

710	Lin. Yds. of	9″ diam.	Foxhills Road.
500	,, ,,	15″ ,,	,, ,,
210	,, ,,	12″ ,,	,, ,,
580	,, ,,	9″ ,,	Reginald Road.
580	,, ,,	9″ ,,	Portman Road.
750	,, ,,	9″ ,,	Doncaster Road and Cliffe Closes Road.
35	,, ,,	18″ ,,	Church Lane Extension.
400	,, ,,	12″ ,,	,, ,, ,,
720	,, ,,	9″ ,,	do. and new roads adjoining.
640	,, ,,	9″ ,,	Warwick Road.
90	,, ,,	15″ ,,	,, ,,
410	,, ,,	9″ ,,	Kenilworth Road.
150	,, ,,	12″ ,,	,, ,,
200	,, ,,	12″ ,,	Sandhouse Crescent.
210	,, ,,	9″ ,,	Lilac Avenue.
50	,, ,,	12″ ,,	,, ,,
150	,, ,,	15″ ,,	Sandhouse Farm Estate.
50	,, ,,	18″ ,,	,, ,, ,,
350	,, ,,	9″ ,,	Hampton Road.
200	,, ,,	9″ ,,	Cemetery Road.
170	,, ,,	9″ ,,	Collin Road.
210	,, ,,	15″ ,,	Cottage Beck Road.
150	,, ,,	9″ ,,	,, ,, ,,
262	,, ,,	27″ ,,	East Common Lane.
217	,, ,,	24″ ,,	,, ,, ,,
108	,, ,,	21″ ,,	,, ,, ,,
103	,, ,,	18″ ,,	,, ,, ,,
420	,, ,,	9″ ,,	Fulbeck Road.
490	,, ,,	9″ ,,	Malvern Road.
260	,, ,,	9″ ,,	Peacock Street.
9,375	Lin. Yds.		

Progress made in improving the character and sufficiency of arrangements for drainage, sewerage and sewage disposal in all parts of the area.

During the year 1938 the construction of the new Main Sewerage and Sewage Disposal Scheme for the reorganisation of the sewerage of the Borough has been completed

The total length of new sewers constructed under the scheme amounted to about 8¾ miles varying from 9″ to 60″ diameter made up as follows :—

682	Lin.	Yds.	of 60″	diameter	sewer.
2,535	,,	,,	51″	,,	,,
127	,,	,,	48″	,,	,,
1,082	,,	,,	45″	,,	,,
566	,,	,,	42″	,,	,,
1,687	,,	,,	36″	,,	,,
697	,,	,,	33″	,,	,,
477	,,	,,	30″	,,	,,
977	,,	,,	27″	,,	,,
413	,,	,,	24″	,,	,,
1,778	,,	,,	21″	,,	,,
2,286	,,	,,	18″	,,	,,
1,120	,,	,,	15″	,,	,,
315	,,	,,	12″	,,	,,
728	,,	,,	9″	,,	,,
15,470	Lin.	Yds.			

About 6½ miles of the above were laid in 1937, particulars of which were given in the last annual report, and the remaining 2¼ miles laid in 1938 comprised :—

115	Lin.	Yds.	of 51″	diameter	sewer.
319	,,	,,	42″	,,	,,
814	,,	,,	36″	,,	,,
410	,,	,,	30″	,,	,
35	,,	,,	27″	,,	,,
158	,,	,,	21″	,,	,,
851	,,	,,	18″	,,	,,
670	,,	,,	15″	,,	,,
728	,,	,,	9″	,,	,,
4,100	Lin.	Yds.			

The construction of the **new Sewage Disposal Works at South Orange Farm, Ashby,** was completed in the latter part of the year, and have been brought into service. These works comprise :—

Detritus Tanks and Screening Chambers with electrically operated Detritus Elevators and Screen Raking Gear. Storm Water Overflow Bay with Gauging Flumes for measuring the dry weather flow and storm water, this being electrically transmitted to a Recorder in the Sewage Works Manager's Office. Storm Water Tanks are provided with a separate outfall to Bottesford Beck. Settling Tanks, Percolating Filters and Humus Tanks treat the dry weather flow and discharge the purified effluent into the Beck. The sludge is pumped into trenches which are dug as required on the land to the west of the site. A house is provided for a Resident Manager and a block of buildings comprising Laboratory, Office, Mess Room with Bathroom, Workshop, Store and Lavatory is conveniently arranged.

In consequence of the bringing into commission of the new Works the use of the three old Works situated at Scunthorpe, Brumby and Ashby, together with the Sewage Ejector Station on Alexander Road, Frodingham, has been discontinued.

The scheme for the construction of a Sewage Pumping Station on the Lodge Farm Estate to deal with the sewage from the development taking place on the low level land situate on the western boundary of the Borough, has been completed and put into service. The sewage discharged at this Pumping Station is lifted to the high level Pumping Station on Doncaster Road and thence into the Corporation's high level gravitation sewers. The scheme was proceeded with as a joint scheme with the Glanford Brigg Rural District Council to deal with development which might take place on the Lodge Farm Estate within the area of the Rural District Council as well as within the Borough, but no development has yet taken place on the portion of the estate outside the Borough Boundary.

The small drainage area at Santon comprises some 73 houses. Their geographical position renders it impossible to connect them to the main disposal works and in view of their close proximity to large iron and steel works and the extensions which are likely to take place to those works they can be regarded as temporary. These houses continue to be dealt with by a small Works and two Settling Tanks at Santon belonging to the Council, 32 of the houses draining to the small works and 41 to the Settling Tanks.

The Sewage Pumping Stations at Burringham Road, Ashby, and Doncaster Road, Scunthorpe, and also the Ejector Station in Frodingham (prior to the diversion of the sewage from it into the new system) have been in regular operation during the year and have given satisfactory service.

The various works have been well maintained and have dealt satisfactorily with the sewage from the drainage areas.

Houses in the Borough not connected with Main Drains.

The number of houses in the Borough not connected to the sewerage system of the District is 153, they are as follows :—

Situation.	No.	Remarks.
Dawes Lane, Santon.	41	Situate in the extreme East of the Borough and as previously stated can be regarded as temporary in view of their close proximity to large Iron and Steel Works and the extensions which are likely to take place to those Works. The geographical position of the houses renders it impossible to connect them to the Sewage Disposal Works.
Scotter Road and Ferry Road north of Doncaster Road.	54	By a compromise between the Council and the Land Owners with the approval of the Ministry of Health in 1923 it was agreed that if houses at a density of 4½ to the acre were permitted the Council would be under no obligation for public services.
Lodge Farm, Scotter Road.	2	It is understood that the owners contemplate the demolition of this property in the near future.
Bottesford Road.	3	These houses are some 200 yards distant from the public sewer to which it is impossible to connect them owing to the levels of the site being too low. The nearest existing public sewer is too shallow to permit of the connection of this property.
Scotter Road, near railway viaduct south of Doncaster Road.	2	Isolated position. No public sewer in the neighbourhood.
Brumby Grove Farm, Scotter Road.	3	Isolated position. No public sewer in the neighbourhood.
Scotter Road near southern boundary of the Borough.	5	Isolated position. No public sewer in the neighbourhood.
Park Farm, Crosby.	3	Isolated position. No public sewer in the neighbourhood.
Conesby Farm, off Normanby Road.	5	Isolated position. No public sewer in the neighbourhood.
Game-Keeper's Lodge, Skippingdale Plantation, Crosby.	1	Isolated position. No public sewer in the neighbourhood.
Game-Keeper's Lodge, Crosby Warren.	1	Isolated position. No public sewer in the neighbourhood.
Orb Lane and St. Vincent's Avenue, off Normanby Road.	14	Isolated position. No public sewer in the neighbourhood.
Ashby Ville Hotel, Brigg Road.	1	Isolated position. No public sewer in the neighbourhood.
Maniwell Cottages, Brigg Road.	5	Isolated position. These houses are the subject of a demolition order.

Situation.	No.	Remarks.
South Grange Farm, Ashby.	2	Isolated position. No public sewer in the neighbourhood.
North Grange Farm, Ashby.	1	Isolated position. No public sewer in the neighbourhood.
Manor Farm, off Burringham Road, Ashby.	3	Isolated position and drain to a small private sewage works in the same ownership.
Brat Hill, South of Ville Road, Ashby.	1	Isolated position and too low to drain to nearest sewer.
Tea Pot Hall, south of Burringham Road, Ashby.	1	Isolated position. No public sewer in the neighbourhood.
Goosehole, east end of North Lincoln Road.	2	Isolated position. No public sewer in the neighbourhood.
The Old Mill, High Street East.	1	Isolated position. No public sewer in the neighbourhood.
Ferry Road West.	1	Isolated position. No public sewer in the neighbourhood.
Poultry Farm, East Common Lane.	1	Isolated position. No public sewer in the neighbourhood.
	153	

WATER.

(a) Particulars of any important changes of public water supplies during 1938.

No changes of public water supplies have been made in 1938 and the supplies continue to be derived from boreholes and other underground works sunk in the Lincolnshire Limestone from undertakings owned by (1) the Council, at Risby Warren, (2) the Council at Appleby, (3) the North Lindsey Water Board at Wressle, and (4) the North Lincolnshire Iron Company, Ltd., at Clap Gates, Appleby.

(b) New Mains. (Water).

The following new mains were laid in 1938:—

680	Lin.	Yds.	6″	Doncaster Road.
434	,,	,,	6″	Scotter Road.
142	,,	,,	4″	West Common Gardens.
180	,,	,,	4″	St. Margaret's Walk.
234	,,	,,	4″	Lincoln Gardens.
50	,,	,,	4″	Norman Crescent.
100	,,	,,	4”	Angerstein Road.
110	,,	,,	6″	,, ,,
250	,,	,,	6″	Newland Avenue.
500	,,	,,	4″	Fulbeck Road.
40	,,	,,	4″	Stocks Hill Road.
506	,,	,,	6″	Queensway.
50	,,	,,	4″	Ten-Foot Road, Rear Cole Street.
220	,,	,,	6″	Brigg Road.
60	,,	,,	4″	Bottesford Avenue.
546	,,	,,	6″	Church Lane.
530	,,	,,	4″	Newland Drive.
100	,,	,,	6″	Malvern Road.
50	,,	,,	4″	Crosby Avenue.
100	,,	,,	4″	Lindale Gardens.
420	,,	,,	6″	East Common Lane.
190	,,	,,	4″	Reginald Road.
75	,,	,,	4″	Portman Road.
770	,,	,,	6″	Warwick Road.
110	,,	,,	6″	Sandhouse Crescent.
108	,,	,,	4″	Lilac Avenue.
110	,,	,,	6″	Screeds.
140	,,	,,	4″	Newland Walk.
400	,,	,,	4″	Hampton Road.
475	,,	,,	4″	Kenilworth Road.
240	,,	,,	4″	Peacock Street.
100	,,	,,	4″	Collinson Avenue.
8,020	Lin.	Yds.		

(c) Consumption.

The total quantity of water consumed in the Borough for domestic purposes during the year ended 31st December, 1938, was 354,803, 680 gallons, equal to 20.37 gallons per head per day taking the population supplied at 47,702, and 78,012,000 gallons have been used for industrial purposes, equal to 4.48 gallons per head per day.

(d) Full analyses of drinking water taken during 1938 are set out in Special Table.

HOUSES WITHOUT TOWN'S WATER, DECEMBER, 1938.

6, Old Crosby	1
4, Ravendale Street	1
64, 66, 72, 74, Ashby High Street	4
86, 91, 95, Ashby High Street	3
Leaning, Ferry Road (Town Water supply not available) ...	1
South Lodge, Ferry Road (Town Water supply not available)	1
North Farm Cottage (Tea Pot Hall), Burringham Road (Town Water supply not available)	1
New Houses, Scotter Rd. (Town Water supply not available)	5
Rowmill Poultry Farm, East Lane (Town Water supply not available)	1
Viaduct Cottages (Water supply from Railway Co.)	2
Brumby Grove Farm and 2 Cottages, Scotter Road	3
Old Mill House, Scunthorpe (Town Water supply not available)	1
	24

REPORTS ON ANALYSES OF CORPORATION SUPPLIED DRINKING WATERS.

Date of Sampling.	3-1-38	3-1-38	4-1-38	4-1-38	4-1-38	4-1-38	11-1-38	11-1-38	11-1-38	15-1-38	15-1-38	15-1-38	15-1-38	24-1-38	24-1-38	31-1-38	31-1-38	31-1-38	31-1-38	31-1-38	31-1-38	1-2-38	1-2-38	1-2-38	3-2-38	3-2-38	3-2-38	3-2-38	4-2-38	4-2-38
Where taken	Rising Main	Rising Main	House Tap	House Tap	House Tap	Tap	Outlet of Reservoir	Tap	Tap	Tap	Tap	Tap	Tap	Tap	Tap	Reservoir Inlet	Reservoir Outlet	Tap	Tap	Tap	Tap	Rising Main.	Rising Main	Rising Main	Rising Main	House Tap	House Tap	House Tap	Reservoir Inlet	Reservoir Outlet
Source of Supply	Appleby	North Lincoln Reservoir					North Lincoln	Clapgate	North Lincoln				North Lincoln	Appleby	Wressle	North Lincoln	North Lincoln	North Lincoln	North Lincoln		North Lincoln	Risby	Wressle	Appleby	Appleby	Risby	Appleby	Risby and Wressle	North Lincoln	North Lincoln
Suspended Matter							Faint trace (light brown particles)		Trace					None	None							None	None	None						
Appearance of a column 2ft. long.							Clear; yellowish		Slightly cloudy, yellowish					Clear, colourless	Clear, colourless							Clear; colourless	Clear; colourless	Clear; colourless						
Taste							Normal		Normal					Normal	Normal							Normal	Normal	Normal						
Odour							None		None					None	None							None	None	None						
Total Solids					47.6	47.0	44.50		45.50					75.0	45.5							42.0	45.0	76.0						
Combined Chlorine					2.85	2.85	3.30		3.30					3.90	3.30				2.15	3.05	2.50	3.30	3.90						
Equivalent to Sodium Chloride							5.44		5.44					6.42	5.44						4.10	5.44	6.42						
Free Chlorine							None	None	None					None	None	None	None	None	None		None	None	None					None	None
Nitrites					Nil	Nil.	None		None					None	None				Nil	Nil	None	None	None						
Nitrates					Nil	Nil	None		None					0.48	None						0.32	None	0.48						
Ammoniacal Nitrogen					.002	Nil	0.0034		0.0014					0.0006	0.0004				Nil	.0006	0.0006	0.0024	0.016					0.0014	0.0014
Albuminoid Nitrogen					.008	.0004	0.0048		0.0044					0.0048	0.0032				.002	0.002	0.0040	0.0040	0.0040					0.0032	0.0056
Oxygen absorbed at 27° C. in 4 hrs.					.014	.020	0.027		0.032					0.041	0.034				.016	.012	0.031	0.041	0.043					0.025	0.039
Temporary Hardness					19.8	21.4	18.0		18.0					33.7	24.3						24.3	24.5	34 2						
Permanent Hardness					10.8	8.6	13.0		13.0					9.3	9.2						4.2	8.0	8.8						
Total Hardness					30.6	30 0	31.0		31.0					43.0	33.5						28.5	32 5	43.0						
Poisonous Metals					Absent	Absent	None		None					None	None						None	None	None						
pH Value							8.5		8.0					8.0	8.0						8.0	7.5	8.0						
Number of Bacteria per c.c.																														
On agar in 3 days at 20° C.	16	8					66	0	98					12	20	0	40	45	20		0	2		0	2	6	16	8	110	
On agar in 48 hrs. at 22° C.			1	2	35	1				4	2	2	25							40	2									
On agar in 48 hrs. at 37° C.	4	0	1	2	21	2	2	0	2	0	0	2	6	4	0	0	2	2	2	2	less than 1	0	2		0	0	4	0	3	11
B. Coli Test.																														
Bacillus Coli	1 in 100 mls.	Nil in 100 mls.	Nil in 150 c.c.	Nil in 150 c.c.	Present in 5 c.c.	Nil in 150 c.c.	3 in 100 mls.	Nil in 100 mls.	11 in 100 mls.	Nil in 150 c.c.	Nil in 150 c.c.	Nil in 150 c.c.	Present in 25 c.c.	Nil in 100 mls.	Nil in 100 mls.	Nil in 100 mls.	Nil in 100 mls.	Nil in 100 mls.	Nil in 100 mls.	Nil in 150 c.c.	Nil in 150 c.c.	0	0		0	0	0	0	0	10 in 100 mls.
Bacillus Welchii	Nil	Nil																												
Streptococcal Organisms			Nil in 150 c.c.	Nil in 150 c.c.	Present in 5 c.c.	Nil in 150 c.c.				Nil in 150 c.c.	Nil in 150 c.c.	Nil in 150 c.c.	Nil in 150 c.c.							Nil in 150 c.c.	Nil in 150 c.c.									
REPORT	Satisfactory.	Satisfactory.	This water is excellent for drinking purposes.	This water is excellent for drinking purposes.	This water is unfit for drinking purposes.	This water is excellent for drinking purposes.				This is an excellent water from the bacteriological standpoint.	This is an excellent water from the bacteriological standpoint.	This is a very good drinking water.	Unsatisfactory.	Satisfactory.	Satisfactory.	Satisfactory	Satisfactory.	Satisfactory	Satisfactory.	Satisfactory from the chemical standpoint.	Satisfactory.	A hard water. Satisfactory both chemically and bacteriologically	A very hard water. Satisfactory both chemically and bacteriologically.	A very hard water.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Bacterial count at 20° C. and Coli Aerogenes Count somewhat high.

Date of Sampling.	4-2-38	4-2-38	7-2-38	9-2-38	9-2-38	9-2-38	9-2-38	11-2-38	11-2-38	14-2-38	14-2-38	14-2-38	14-2-38	14-2-38	18-2-38	18-2-38	18-2-38	18-2-38	23-2-38	23-2-38	23-2-38	23-2-38	24-2-38	24-2-38	24-2-38	11-3-38	11-3-38	14-3-38	14-3-38	28-3-38
Where taken	Drinking Fountain	House Tap	House Tap	Reservoir Inlet	Reservoir Outlet	Drinking Fountain	House Tap	House Tap	House Tap	Reservoir Inlet	Reservoir Outlet	Concrete Mixer	House Tap	House Tap	Reservoir Inlet	Reservoir Outlet	Concrete Mixer	House Tap	Reservoir Inlet	Reservoir Outlet	Concrete Mixer	House Tap	Drinking Tap	House Tap	House Tap	Reservoir Outlet	Concrete Mixer	House Tap	Drinking Tap	Reservoir Outlet
Source of Supply	Ironworks	North Lincoln	North Lincoln	North Lincoln	North Lincoln	Ironworks	North Lincoln	North Lincoln		North Lincoln	North Lincoln	Ironworks	North Lincoln		North Lincoln	North Lincoln	Ironworks	North Lincoln	North Lincoln	North Lincoln	Ironworks	North Lincoln			North Lincoln	North Lincoln	Ironworks	North Lincoln	North Lincoln	North Lincoln
Suspended Matter																							None	faint trace	faint trace			None	None	
Appearance of a column 2ft. long.																							clear; faintly yellowish	clear; faintly yellowish	Clear; faintly yellowish			Clear; faintly yellowish	Clear; colourless	
Taste																							Normal	Normal	Normal			Somewhat musty	Normal	
Odour																							None	None	None			Somewhat musty	None	
Total Solids								3.05	3.05					2.05									73.5	37.0	69.0			45.0	67.0	
Combined Chlorine			3.05																				3.60	2.40	3.60			3.40	3.50	
Equivalent to Sodium Chloride																							5.92	3.95	5.92			5.60	5.76	
Free Chlorine	None	None		None	None	None	None			None	None	None	None		None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Nitrites			Nil					Nil	Nil					Nil									None	None	None			None	None	
Nitrates																							0.48	0.40	0.40			None	0.32	
Ammoniacal Nitrogen	0.0014	0.0014	Nil	Nil	0.0006	0.0008	0.0008	Nil	Nil	0.0024	0.0010	0.0008	0.0012	Nil	0.0010	0.0016	0.0004	0.0004	0.0004	0.0005	0.0003	0.0004	0.0004	0.0010	0.0004	0.0008	0.0002	0.0002	0.0002	0.0010
Albuminoid Nitrogen	0.0032	0.0024	0.003	0.0024	0.0024	0.0024	0.0016	0.0016	0.001	0.0032	0.0048	0 0032	0.0032	0.0016	0.0024	0.0064	0.0024	0.0024	0.0024	0.0040	0.0024	0.0024	0.0032	0.0032	0.0024	0.0040	0.0040	0.0032	0.0040	0.0088
Oxygen absorbed at 27° C. in 4 hrs.	0.028	0.029	0.021	0.021	0.034	0.026	0.032	0.011	0.014	0.020	0.024	0.017	0.016	0.019	0.025	0.033	0.035	0.035	0.022	0.037	0.034	0.030	0.050	0.031	0.039	0.028	0.030	0.029	0.042	0.057
Temporary Hardness																							35.2	9.4	32.7			21.6	32.6	
Permanent Hardness																							2.3	0.0	5.3			10.9	3.9	
Total Hardness																							37.5	9.4	38.0			32.5	36.5	
Poisonous Metals																							None	None	None			None	None	
pH Value																							7.5	8.0	7.5			8.0	7.5	
Number of Bacteria per c.c.																														
On agar in 3 days at 20° C	73	15		0	0	18	15		65	1	5	1	0	14	0	5	1	1	0	11	0	0	2	43	3	40	22	21	7	14
On agar in 48 hrs. at 22° C.			200				2	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	2
On agar in 48 hrs. at 37° C.	1	2	18	0	0	0																								
B. Coli Test.																														
Bacillus Coli	0	0	Present in 100 c.c	0	0	0	0	Abs.from 150 c.c	Abs.from 150 c.c	0	0	0	0	Abs.from 150 c.c	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	3
Bacillus Welchii								Abs.from 150c.c.	Abs.from 150c.c.					Abs.from 150 c.c																
Streptococcal Organisms			Absent in 150 c.c																											
REPORT	Satisfactory.	Satisfactory.	Whilst this water is fairly satisfactory from the chemical standpoint. the bacteriological examinations shows the presence of more organisms than are advisable in a drinking water.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	This water may be considered perfectly safe for drinking purposes.	This water may be considered perfectly safe for drinking purposes.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	This is a very satisfactory water for drinking.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory both chemically and bacteriologically.	Satisfactory both chemically and bacteriologically.	Satisfactory both chemically and bacteriologically	Satisfactory.	No. of organisms of the Coli Aerogenes Group per 100 mls. rather higher than usual	Satisfactory both chemically and bacteriologically	Satisfactory both chemically and bacteriologically	Satisfactory.

PLEASE TURN OVER.

Date of Sampling.	28–3–38	21–3–38	21–3–38	30–3–38	30–3–38	27–4–38	27–4–38	27–4–38	27–4–38	27–4–38	27–4–38	27–4–38	27–4–38	31–5–38	31–5–38	8–6–38	8–6–38	8–6–38	8–6–38	8–6–38	16–6–38	16–6–38	16–6–38	29–6–38	29–6–38	29–6–38	5–8–38	5–8–38
Where taken	14in. Main	Reservoir Outlet	Concrete Mixer	House Tap	House Tap	House Tap	House Tap	House Tap	Rising Main	Rising Main	Rising Main	Rising Main	Rising Main	Rising Main	Rising Main	House Tap	House Tap	House Tap	House Tap	House Tap	House Tap	House Tap	House Tap	Rising Main	Rising Main	Outlet of Reservoir	House Tap	Rising Main	Rising Main
Source of Supply	North Lincoln	North Lincoln	North Lincoln						Risby Warren	Risby Warren	Risby Warren	Risby Warren	Risby Warren	Wressle	Wressle	N. Lincs. and Appleby	Risby and Wressle	Risby and Wressle	N. Lincs. and Appleby	N. Lincs.	N. Lincs. and Appleby	N. Lincs.	N. Lincs.	N. Lindsey	N. Lindsey	N. Lincs.	Wressle and Risby		
Suspended Matter				Faint trace	None																							
Appearance of a column 2ft. long.				Clear ; faintly yellowish	Clear ; faintly yellowish																							
Taste				Somewhat musty	Normal																							
Odour				Somewhat musty	None																							
Total Solids				45.0	38.0									17.1	50.0					55		48.5		52.9	48.5	45.7	43	18.6	34.3
Combined Chlorine				3.30	2.30	2.75	3.5							3.8	3.75					3.75		3.5		2.35	3.75	3.5	2.75	3.75	3.5
Equivalent to Sodium Chloride				5.44	3.78	4.54	5.70							6.27	6.186					6.185		5.78		3.98	6.19	5.8	4.5	6.19	5.78
Free Chlorine	None	None	None	None	None	Nil	Nil																						
Nitrites				None	None	Nil								Trace	Trace	Trace	Trace	Trace	0.001	Trace	Nil	Trace	Nil	Trace	Trace	Trace	Trace	Trace	Nil
Nitrates				0.03	0.24	Nil	Nil							Nil	Nil					Nil	Nil	Nil	Nil	Trace	Nil	Nil	Nil	Nil	Nil
Ammoniacal Nitrogen	0.0006	0.0006	0.0006	0.0004	0.0004	Nil.	Nil							0.0018	Trace	0.0025	0.0028	0.0028	0.002	0.0018	0.0026	0.0036	0.0036	Trace	Trace	Trace	Trace	Trace	0.0012
Albuminoid Nitrogen	0.0044	0.0056	0.0032	0.0040	0.0040	0.0021	0.0026							0.002	0.0025	0.003	0.0032	0.0032	0.0035	0.0029	0.003	0.0021	0.004	0.002	0.0018	0.0026	0.002	0.0018	0.002
Oxygen absorbed at 27° C. in 4 hrs.	0.037	0.029	0.026	0.036	0.031	0.004	0.0043							0.14	0.11					0.15		0.03		0.08	0.06	0.03	0.064	0.15	0.11
Temporary Hardness				22.3	18.3	0.175	0.17																						
Permanent Hardness				10.2	10.7																								
Total Hardness				32.5	29.0																								
Poisonous Metals				None	None																								
pH Value				8.0	7.5																								
Number of Bacteria per c.c.																													
On agar in 3 days at 20° C.	24	12	1	0	6																								
On agar in 48 hrs. at 22° C.													79	17	14	47	58	172	376	1,460	34	15	418	147	27	1490	6	23	26
On agar in 48 hrs. at 37° C.	3	0	0	0	0	13	6	Nil	7	18	8	5	21	Nil	30	3	206	25	750	490	48	Nil	26	31	4	528	Nil	Nil	3
B. Coli Test.						Nil	8	2	1	7	4	11																	
Bacillus Coli	1	0	0	0	0								Abs. in 100 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 100 c.c.	Abs. in 150 c.c.	Abs. in 100 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.
Bacillus Welchii						Abs. in 100 c.c.	Abs. in 100 c.c.	Abs. in 100 c.c.	Abs. in 100 c.c.	Abs. in 100 c.c.	Abs. in 100 c.c.	Abs. in 100 c.c.	Abs. in 100 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.		Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.
Streptococcal Organisms						Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.																	
REPORT	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory both chemically and bacteriologically	Satisfactory both chemically and bacteriologically	Satisfactory.	This water is fairly satisfactory chemically and satisfactory bacteriologically	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Fairly satisfactory.	Medium water; bacterial count is higher than might be expected.	Satisfactory.	Satisfactory	Satisfactory.	Satisfactory.	Satisfactory.	Good water chemically. Bac. count is higher than might reasonably be expected.	Satisfactory.	Satisfactory.	Satisfactory.

Date of Sampling.	6–9–38	6–9–38	6–9–38	6–9–38	6–9–38	14–9–38	14–9–38	20–9–38	20–9–38	4–10–38	24–10–38	24–10–38	26–10–38	26–10–38	9–11–38	9–11–38	8–11–38	8–11–38	10–11–38	10–11–38	9–11–38	22–11–38	6–12–38	6–12–38	6–12–38	6–12–38	14–12–38	19–12–38
Where taken	House Tap	House Tap	House Tap	House Tap	House Tap	Rising Main	Rising Main	House Tap	House Tap	House Tap	Rising Main	Rising Main	House Tap	House Tap	House Tap	House Tap	Rising Main	Rising Main	House Tap	House Tap	House Tap	House Tap	House Tap	Rising Main	Rising Main	House Tap	House Tap	Rising Main
Source of Supply	Wressle and Risby	Wressle and Risby	Wressle and Risby	N. Lincs.	N. Lincs. and Appleby	Wressle	Wressle	N. Lincs.	N. Lincs. and Appleby	N. Lincs.	Wressle	Wressle	Risby and Wressle	N. Lincs.	Risby and Wressle	Risby and Wressle	Risby.	Wressle	N. Lincs. and Appleby	N. Lincs. and Appleby	Risby and Wressle	N. Lincs. and Appleby	Wressle and Risby	N. Lindsey	N. Lindsey	N. Lincs.	Wressle and Risby	N. Lindsey
Suspended Matter																												
Appearance of a column 2ft. long.																												
Taste																												
Odour																												
Total Solids	85.7			64.3	57.1	28.6	21.4	14		41	15.7	14.3	71	57					57	71	93	47.8	28	50	50	43	42.7	42.8
Combined Chlorine	3.3			3.3	3.3	3.0	3.0	3.5		3.5	1.0	1.2	3.5	3.5					4.0	5.0	4.5	2.9	4.0	3.5	4.0	3.75	2.75	3.5
Equivalent to Sodium Chloride	5.4			5.4	5.4	4.95	4.95	5.78		5.78	1.65	1.98	5.7	5.7					7.2	8.25	7.4		6.6	5.78	6.6	6.2	4.58	5.78
Free Chlorine				Nil	Nil	Trace	Trace	Nil		Nil	Nil	Trace	Nil	Nil					Trace	Trace	Trace							
Nitrites	Nil	Nil	Nil	Nil	Trace	Trace	Trace	Nil		Nil	Nil	Nil	Trace	Nil					Trace	Trace	Trace	Nil	Nil	Nil	Nil	Nil	Trace	Nil
Nitrates	Trace	Trace	Trace	Trace	0.002	Trace	Trace	0.00014		0.0008	0.0005	0.0008	0.0016	Trace					0.0004	0.0007	Nil	.06	Present	Trace	Trace	Trace	Present	Trace
Ammoniacal Nitrogen	Nil			0.002	0.0018	0.002	0.0.4	0.00042		0.002	0.0009	0.0012	0.001	0.0008					0.0006	0.0049	Trace		Trace	Trace	Trace	Trace	0.0007	0.0021
Albuminoid Nitrogen	Trace			0.12	0.12	0.05	0.03	0.2		0.108	0.08	0.085	0.11	0.13					0.11	0.16	0.05	.0004	0.001	0.0005	0.0008	0.001	0.0035	0.003
Oxygen absorbed at 27° C. in 4 hrs.	0.08																					.010	0.06	0.06	0.056	0.06	0.055	0.08
Temporary Hardness																						19.8						
Permanent Hardness																						10.8						
Total Hardness																						30.6						
Poisonous Metals																						Absent						
pH Value																												
Number of Bacteria per c.c.																												
On agar in 3 days at 20° C.																												
On agar in 48 hrs. at 22° C.	21	6	3	13		7	3	1526	407	278	Nil	4	638	Nil	18	2	290	140	10	820	4		38	18	58	17	8	8960
On agar in 48 hrs. at 37° C.	58	2	5	1		6	7	972	190	7	Nil	Nil	2700	Nil	2	Nil	3	Nil	16	362	Nil		4	7	302	12	Nil	1420
B. Coli Test.																												
Bacillus Coli	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.		Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 1 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.		Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.	Abs. in 150 c.c.
Bacillus Welchii	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.		Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.		Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.	Abs. in 10 c.c.
Streptococcal Organisms																												
REPORT	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Bac. count considered with oxygen absorbed figure suggests possibility of contamination.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Chemically the water is fairly satisfactory. Bacteriologically the count is rather high and the presence of B. Coli in 10 c.c. is suspicious.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Fairly satisfactory.	Bact. a fairly satisfactory water. Oxygen absorbed figure is above normal for a piped supply.	Satisfactory.		Satisfactory.	Satisfactory.	Satisfactory chemically. Bact. results suggests some fault in technique of sampling.	Satisfactory.	Satisfactory.	Chemically a fairly satisfactory water. Bact. count is too high

ANALYSES OF WELL AND SPRING WATERS.

Chemical figures are in Parts per 100,000.

Address.	Source.	Date of sampling.	Total Solids.	Combined Chlorine	Equivalent to Sodium Chloride.	Nitric Nitrogen. (Nitrates)	Nitrous Nitrogen. (Nitrites)	Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hrs. at 27° C.	Number of Bacteria per c.c.				REPORT.
											On agar in 48 hrs. at 22° C.	On agar in 48 hrs. at 37° C.	Bacillus Coli present in.	Bacillus Welchii present in.	
86 Ashby High St. (Gable House Farm)	Well	20.9.38	100	7.0	10.35	Present	Slight trace	0.0007	0.00168	0.11	543	136	—	—	The presence of nitrates and nitrites suggest the possibility of contamination.
		6.10.38									8600	670	10 c.c.	—	Bacteriologically, an unsatisfactory water.
6 Old Crosby	Well	4.10.38	86	5.0	8.25	Nil	Nil	0.0015	0.0022	0.115	409	618	10. c.c.		Chemically the water is satisfactory, the bacterial count is rather high and the presence of B. Coli in 10 c.c. is indicative of pollution.
		26.10.38									2470	2600	150 c.c.	—	The bacterial count is higher than that of a satisfactory water.
4 Ravendale St.	Well	6.10.38	80.6	9.0	14.85	Present	Trace	0.0014	0.0019	0.03	9	16	—		A satisfactory water.
		26.10.38	128.6	9.0	14.8	Present	Trace	0.0006	0.0008	0.13	8	6	—	—	Bacteriologically a good water but Sodium Chloride figure with Nitrates present is rather suspicious.
64 and 66 Ashby High Street	Well	20.9.38	171	7.0	10.35	Present	Trace	0.00014	0.00098	0.28	154	71	150 c.c.	—	This water is not fit for drinking.
72 and 74 Ashby High Street	Well	20.9.38	110	7.25	11.9	Present	Trace	0.00014	0.00056	0.2	683	375	150 c.c.	—	This water is not fit for drinking.
91 Ashby High St.	Well	20.9.38	110	5.0	8.25	Present	Present	0.0007	0.0028	0.3	5300	2460	150 c.c.	—	This water is unfit for drinking.
95 Ashby High St.	Well	20.9.38	100	5.5	9.0	Present	Nil	0.0007	0.0012	0.25	628	22	—	—	A fairly satisfactory water. Oxygen absorbed figure is rather high.
		6.10.38									11600	1084	150 c.c.	—	Bacteriologically this water is unsatisfactory.
Tea Pot Hall Cottage, Burringham Rd.	Well	26.10.38	57	4.0	6.6	Trace	Nil	0.0006	0.0014	0.19	17	35	—	—	A satisfactory water.

P.T.O.

Address.	Source.	Date of sampling.	Total Solids.	Combined Chlorine	Equivalent to Sodium Chloride.	Nitric Nitrogen. (Nitrates)	Nitrous Nitrogen. (Nitrites)	Ammoniacal Nitrogen.	Albuminoid Nitrogen.	Oxygen absorbed in 4 hrs. at 27° C.	Number of Bacteria per c.c.				REPORT.
											On agar in in 48 hrs. at 22° C.	On agar in in 48 hrs. at 37° C.	Bacillus Coli present in.	Bacillus Welchii present in.	
1 Scotter Road	Well	10.11.38	86	11.0	18.15	Present	Present	0.0014	0.0021	0.35	460	13	—	—	Bacteriologically a fairly satisfactory water ; chemically it is unsatisfactory.
3 Scotter Road	Well	10.11.38	128	20.0	33.0	Present	Trace	0.00084	0.0049	0.6	3600	380	—	—	Chemically, unfit for drinking.
4 Scotter Road	Well	10.11.38	78.6	15.0	24.7	Present	Present	0.0112	0.0028	0.4	16	28	—	—	This water is not fit for drinking purposes.
Clarke, Rowmill Poultry Farm, East Common Lane	Pump (Well)	6.10.38	50	3.5	5.78	Trace	Nil	0.0005	0.0018	0.08	93	—	150 c.c.	—	A fairly satisfactory water.
		26.10.38									2	6	—	—	Bacteriologically a satisfactory water.
Viaduct Cottages, Scotter Road.	Spring	6.10.38	43	4.5	7.4	Trace	Nil	0.0012	0.0019	0.29	436	149	1 c.c.	—	An unsatisfactory water.
Brumby Grove Farm and 2 cottages	Spring	6.10.38	71	3.0	4. 95	Slight trace	Nil	0.0005	0.0012	0.06	963	138	10 c.c.	—	Chemically satisfactory—presence of B. Coli in 10 c.c.'s suggests contamination.
		6.10.38	70	3.0	4.95	Slight trace	Nil	0.0005	0.0012	0.06	640	96	150 c.c.	—	A fairly satisfactory water.
		26.10.38									72	24	10 c.c.	—	The presence of B. Coli in 10 c.c.'s suggests contamination.
Old Mill House, High Street	Pump	6.10.38	100.7	13.5	22.2	Present	Trace	0.0015	0.0024	0.1	1116	347	10 c.c.	—	An unsatisfactory water.
South Lodge Farm, Ferry Road.	Spring	26.10.38	37.7	4.5	7.4	Trace	Nil	0.0005	0.0008	0.22	22	17	10 c.c.	—	The high figure for oxygen absorbed and the presence of B. Coli in 10 c.c.'s suggests contamination.
		10.11.38									127	5	—	—	Bacteriologically a satisfactory water.
Leanings Farm Ferry Road.	Spring	10.11.38	86	5.0	8.25	Trace	Trace	Slight trace	0.0005	0.08	14	6	—	—	A fairly satisfactory water.

REPORT OF THE CHIEF SANITARY INSPECTOR (MR. J. GALLAGHER).

Conversion of Pail Closets to Water Carriage.

After 18 years of voluntary effort to secure the conversion of the privy pails in the district, it is pleasing to report that at the end of the year under review the whole of the privy pails within the present sewered area, except houses on which demolition orders have become operative, have been converted to water carriage. After persuading the owners of 3,304 privies to convert them to water carriage it was found necessary to use the powers conferred by Section 47 of the Public Health Act in the case of the owners of 24 privies.

There are now within the Borough 85 pail closets of which 74 are outside the sewered area and 11 at houses on which demolition orders have become operative. Of the 85 that are in existence, 41 are cleansed weekly by the Local Authority. The remainder, which are situated chiefly on farms, are cleansed by the occupiers.

During the year 42 pail closets were converted to water carriage. This completes the conversion of all the pail closets in the Borough which are within the sewered area or are not scheduled for demolition. We may justifiably feel jubilant at having encompassed this great public health reform after many years of patience and perseverance.

Public Cleansing.

This important public health service continues to expand insofar as the collection of house and trade refuse collection and disposal is concerned, but to decrease in the case of the collection and disposal of nightsoil. Until the early part of the year under review, the working week of the refuse collectors occupied 42 hours. Except under special circumstances, no refuse collection was carried out on Saturday mornings. This arrangement gave the motor drivers opportunity to grease and clean their vehicles within a 47 hour week and allowed arrears of refuse collection due to bad weather or holidays to be overtaken. Owing to agitation by the workmen to work a 47 hour week, the working week has now been extended to include Saturday morning. This has caused some little confusion and annoyance to householders—particularly at holiday times—when collectors are one or more days behind their usual time.

The Council are members of the Provincial Council (Non-Trading Services) No. 5 East Midland Area and the rate of wages paid is that laid down for a Grade A (11) town.

The proposal to erect a new Health Department Depot which will provide garages, men's mess room, baths, etc., is still under consideration. The proposals have been retarded somewhat by an instruction of the Council to the various departments to consider the advisability of erecting a central depot to accommodate the Highways and the Water and Sewage Departments. These proposals have now been rejected and the Health Department is to proceed with its plans for the erection of its own depot.

Collection of House and Trade Refuse.

The whole of the work is carried out with mechanical transport, seven vehicles being employed. Except in the case of small isolated areas, the relay system is adopted. Each gang consists of 6 dustbin carriers and two motor drivers. Where there is any appreciable waiting time by the vehicles, they are engaged on hauling soil from the bottom of the disposal site to points where refuse tipping is being carried out.

The amount of refuse collected during the year, including unfit food and trade refuse, was 11,455 tons or 1,099 tons more than that collected last year. This is equal to 14.29 cwts. per 1,000 of the population per year as against 14.09 cwts. collected last year. This shows an increased production of 0.2 cwts. per 1,000 persons per year. The amount of refuse produced is based on test weighing. It is proposed to provide a weighbridge at the proposed new depot which will be situated near the tipping site which should accommodate refuse for the next 15 years.

Trade refuse is removed regularly only at the request of those persons who enter into an agreement with the Corporation to have it removed weekly and to pay an agreed amount quarterly. The charge is at the rate of 4s. 4d. per bin — (or its equivalent) — per quarter. Those not requiring a weekly service can have refuse removed on request after agreeing to pay the estimated cost of removal and disposal. The department supplies special sacks to those persons who accumulate waste paper or light combustible refuse and who have formally requested the Corporation to remove it, after agreeing to pay the Corporation's charges. The income from this service during the financial year ending 31st March 1939, amounted to £207 16s. 7d., an increase of £32 2s. 7d. over last year's receipts. 75% of this amount is allocated to the cost of the collection service, the remaining 25% being allocated to disposal.

Disposal Of House And Trade Refuse.

The method of disposal is by controlled tipping. A very small amount of trade refuse which is of a light combustible character is incinerated. Clean waste paper is baled and sold. Specially constructed portable wire screens are provided at the disposal site to prevent the waste paper contained in the refuse from blowing on to adjacent land, but in very windy weather it

is found almost impossible to prevent a certain amount of this matter from blowing about. A lot of it blows about the site whilst the operation of tipping the lorries is being carried out. This is afterwards collected.

The disposal site is on part of a parcel of 46 acres of land from which ironstone has been removed and which was purchased by the Council 3 years ago for refuse disposal purposes. The average depth of the present site is about 10 ft. below the level of the adjoining road, and the refuse is deposited and packed in two layers. An area of approximately two and a half acres has been filled in up to slightly above road level during the year. There is an abundance of soil for covering purposes. A thin layer of covering earth is spread on the first layer of refuse and a thick layer approximately 15" deep is put on the finished top. It is expected that next year the finished parts of the tip will be used for allotments.

In the early part of the year, the Council purchased a mechanical shovel for removing the surface soil before tipping commences. It consists of a tractor with a ⅓ cubic yard bucket attached. A portable stage has been constructed and placed near the tip end on the lower layer of refuse. The shovel digs out the soil and deposits it on the stage which is about 5ft. 6ins. in height ready for the tip men to spread over the refuse. For the covering of the top layers, the shovel has to load the earth into our own lorries which haul it to the place where it is required. The shovel cost £475 and has very well proved its worth.

Two prosecutions were taken during the year against two youths who were found disturbing material deposited on the Council's refuse disposal site in Brigg Road contrary to Section 76 of the Public Health Act, 1936. The cases were dismissed under the First Offenders Act, the defendants being warned not to repeat the offence.

Nightsoil Collection and Disposal.

At the end of the year there were 85 pail closets in the district. Eleven of these are in houses on which demolition orders have become operative, but owing to some special reason have not yet been demolished, the remainder are situated outside the sewered areas of the town. The Council undertake the weekly cleansing of approximately 42 pail closets—39 of which are in the Santon area and are earmarked for action under the Housing Act.

The privy pail contents are collected by a motor vehicle fitted with a special removable tank body. The contents are disposed of by emptying into a specially constructed underground tank which is connected to the public sewer.

Cleansing Costs.

A statement of costs checked and certified by the Borough Treasurer is given in Tables 23 to 26 at the end of this report.

PUBLIC CONVENIENCES.

During the year the Cole Street Men's Conveniences were altered so as to provide accommodation for women. The alteration took the form of dividing a block of 4 W.C.'s into one set of 2 for women and one set of two for men and the construction of separate approaches and entrances. The work was carried out under the direction of the Borough Engineer.

Owing to the delay in completing the purchase of a condemned house at the corner of Bottesford Lane and Ashby High Street no further progress has been made in the provision of a public convenience in Ashby. The Health Committee have also decided on the principle of erecting a new convenience on land near the western entrance to the town and a sum of money has been provided in the rate estimate for 1939/40 for this purpose.

The following is a statement showing the income from the various conveniences for the twelve months ending 31/12/38 :—

Convenience.	No. of persons using W.C.'s.	Receipts. £	s.	d.	No. of persons using Wash-up.	Receipts. £	s.	d.	No. of persons using Weighing Machines.	Receipts. (Total). £	s.	d.	Total Receipts. £	s.	d.
Market Hill (Ladies)	26,854	111	17	10	556	4	12	8	1,962	2	14	6	119	5	0
Market Hill (Men)	13,983	58	5	3	—	—			27,156	37	14	4	95	19	7
Britannia (Ladies)	27,753	115	12	9	135	1	2	6	3,144	4	7	4	121	2	7
Britannia (Men)	17,659	73	11	7	835	6	19	2	37,980	52	15	0	133	5	9
Cole Street (Ladies)	1,016	4	4	8	—	—			—	—			4	4	8
Cole Street (Men)	1,822	7	11	10	—	—			2,667	3	14	1	11	6	11
Furnace Arms (Men)	1,331	5	10	11	—	—			—	—			5	10	11
	90,418	376	14	10	1,526	12	14	4	72,909	101	5	3	490	14	5

NOTE. — The weighing machines are the property of an automatic machine company. The Council receives one-third of the receipts and the amount stated represents that taken by the Council only.

SANITARY INSPECTION OF THE AREA.

A classified statement of the number of premises visited, the defects or nuisances discovered, and the action and result of action taken in regard to these will be found in Tables 14 to 18 at the end of the Report.

The total number of nuisances abated and improvements effected during the year is 3,513 against 3,487 in 1937, while 9,511 general inspections were made against 9,964 in 1937.

Smoke Abatement.

During the year 13 formal notices were served for the abatement of nuisances arising from smoke. Although no police court action was taken in any instance, such course was threatened on many occasions and this resulted in considerable improvement.

Shops Acts.

This work is carried out by a part-time official working under the direct supervision of the Town Clerk and controlled by the Finance and General Purposes Committee of the Corporation.

Factories.

There are 131 Factories in the district, and the number of inspections carried out was 237. A detailed statement showing the findings is contained in Table 15 at the end of this report.

Workplaces (including Offices).

During the year 75 premises comprising 264 rooms were inspected and measured for the purpose of ascertaining the sufficiency and suitability of the sanitary accommodation and for the purpose of ascertaining the conditions of cleanliness and possible overcrowding. A detailed statement of the defects found and remedied is incorporated in Table 15 at the end of this report.

As the work involved in the first survey of offices is necessarily extensive, it was found possible only to record the conditions found in the smaller offices in the town such as those occupied by solicitors, accountants, estate agents, banks, etc. It is expected that the inspection of larger offices belonging to the steel works and engineering firms will be carried out in the coming year.

Permission to enter the premises belonging to a Railway Company was refused, firstly on the ground that as the premises form part of the Railway Company's statutory undertaking, the right of entry of a sanitary inspector was not admitted, and secondly, the authorised officer is only entitled to enter an premises (other than those to which the exempting sections apply) for the purposes mentioned in Section 287 of the Public Health Act 1936, **and then only if he has reasonable ground for so doing.**

In the event of a refusal for permission to enter by an authorised officer of the Council after giving the requisite 24 hours notice, the railway company would render themselves liable to proceedings for obstruction which, if proved, might result in a fine of £5 and a further fine not exceeding £5 for every day on which the offence continues after conviction thereof. The Council decided to defer to a later unspecified date the question of what action it would take. At the end of the year under review no further action had been taken in the matter.

Bakehouses.

There are 19 Bakehouses within the district, none of which are underground. 38 inspections were made and 6 contraventions of the law were revealed. These were remedied.

Offensive Trades.

At the end of the year there were 51 premises in which offensive trades were being carried on. Of these, 50 are fish frying businesses and one is gut scraping and tripe boiling business. 108 inspections were made.

Fish Frying.

The number of fish frying premises has been increased by one. Two applications to commence new businesses have been granted, and in one case the business has been closed down.

Generally, the businesses have been carried on in a satisfactory manner. The relationships existing between the Fish Friers' Association and the department has continued to be of a very friendly and helpful character.

During the month of July an enquiry into the summer time consumption of fish and chips was made. The results are stated below.

	Summer time weekly consumption.	
Ward.	Potatoes. cwts.	Fish. stones.
Park	35	53
Crosby	74	138
East	134	202
Town	109	199
West	65	72
Brumby	23	35
Frodingham	84	129
Ashby	81	106
Totals	605	974

The average amount of food cooked per establishment (weekly) is equal to 19.5 stones of fish and 12.1 cwts. of potatoes. On the basis of a population of 42,000 the consumption of these foods per 100 of the population is equal to 2.32 stones of fish and 1.44 cwts. of potatoes per week. The average amount of food cooked per establishment shows a decrease against last year of 1.75 stones of fish and 2.5 cwts. of potatoes although the population has increased by 1,730.

During the year the Ministry of Health refused the Corporation's application for a renewal of the Scunthorpe Corporation's Order declaring the business of fish frying to be an offensive trade. This means that after October 1940, the Corporation, while having some measure of regulation over the opening of new businesses within the Town Planning area, will have no power over the establishment of new Fish Frying Shops within the built-up area in the centre of the town which is excluded from the Town Planning Scheme.

Tents, Vans and Sheds.

A great deal of time and effort has been spent during the year in ridding the town of its old shacks, 'bus bodies and other types of so called moveable dwellings. Section 269 of the Public Health Act 1936 has been found useful in this respect. Conditional licences of short duration were granted to the occupiers of moveable dwellings in the district during 1937. The periods of the licences were for varying periods not exceeding six months. This was done in order not to create undue hardship in finding suitable housing accommodation. Many of the occupiers of these dwellings purchased houses, others were able to rent private houses and magisterial proceedings had to be instituted to move the remainder. At the beginning of the year there were 52 of these types of dwellings in the district; at the end of the year there were 11. Of these 11, 7 were occupied by members of the amusement fair business who travel the country in the summer time and return to this district for the winter months. Their vans are well adapted and their behaviour generally beyond reproach. The following prosecutions were undertaken by the department during the year:—

Case Letter.	Offence.	Result of Proceedings.	
A.	Using moveable dwelling for human habitation without licence from the Local Authority.	Fined 15/-	and ordered to cease using the structure for human habitation
B.	ditto.	,, 40/-	ditto.
C.	,,	,, 40/-	,,
D.	,,	,, 5/-	,,
E.	,,	,, 15/-	,,
F.	,,	,, 15/-	,,
G.	,,	,, 40/-	,,
H.	,,	,, 40/-	,,

Four of the above cases eventually found suitable alternative accommodation, one was promised the tenancy of a private house and the remaining three have been placed on the special consideration list for the tenancy of Corporation houses in accordance with Section 85 (sub-section 2) of the Housing Act 1936.

Common Lodging Houses.

There is one registered common lodging house in the district for men only. It has accommodation for 120 lodgers and until the late part of the year was generally used to capacity. It is well adapted and maintained. Very frequent night inspections were made.

It was recorded in last year's report that the Council had decided to institute police court proceedings in four instances where persons were alleged to be keeping common lodging houses without being the registered keeper thereof, contrary to the provisions of Section 236 of the Public Health Act 1936. The cases were before the magistrates in March of the year under review. Although evidence was submitted that persons of the poorer, who were not members of the same family, were accommodated by night and were allowed to occupy a common room for eating and sleeping, the magistrates in a written judgment delivered 7 days after the hearing dismissed the summons. Learned counsel was briefed by the defence whilst the prosecution was conducted by the Town Clerk. The following is the judgment as delivered by the Chairman of the Bench :—

> "The Section of the Act of 1936 defining a Common "Lodging House suggests to our minds by part of its "wording, such as 'accommodation by night' and 'resort "to it', that it has special reference to lodgers of a moving "or casual description. We are not impressed by the "argument that these particular premises are outside the "Act by reason of the fact that they possess more than one "common room. It appears to us that all that is intended "by those words are that there must be community of "accommodation for either sleeping or eating—the lodgers "using one or more rooms in common with the rest of the "inmates.
>
> "Those conditions appear to be applicable in this "particular case, but we think there is some substance in "the suggestion that premises can only be labelled as 'a "common lodging house' if **they exist primarily for "providing nightly accommodation for impoverished casual "lodgers while on the move.**
>
> "This was at one time apparently clearly defined and "though the statutory authority was subsequently removed "it was later held by the Courts that such definition was "still applicable to the Statutes then in force, and "presumably is still applicable.

"We are bound to accept the sworn evidence put "before us and bearing in mind that defendant has declared "that he has never on any occasion taken in a lodger for "one night only, that the usual form of letting is for one "week, for which the lodger pays in advance and is not "reimbursed if in fact he stays less than one week; "Parkinson has told us that he **lives** at number forty and "has done since July of last year and that he was then "sharing a bedroom with three **workmates.**

"He also confirmed that he had never seen any casuals "there. This evidence was quite unshaken by the "prosecution and we must therefore arrive at the conclusion "that the premises in question are not common lodging "houses within the meaning of the Act and consequently "defendant has not committed an offence by failing to "register.

"We must, however, remark that the evidence for the "prosecution in fact disclosed extremely bad conditions in "these premises and we very much hope that the proceed-"ings which have been taken will have the effect of "bringing about and maintaining a very much better state "of affairs."

It is very bewildering to contrast this decision with that on a closely similar case taken by the Birmingham Corporation and cited in the Law Reports in "Times" dated October 28th, 1938. where the magistrates recorded a conviction. On appeal to the "King's Bench" the conviction was upheld.

In three of the four cases brought by the Scunthorpe Corporation, the premises have since ceased to be used as Common Lodging Houses. In the remaining case, the proprietor alleges that it is used as a boarding establishment.

Hut Encampment.

This is an encampment situated on the Brigg Road which provides temporary accommodation for about 200 men engaged by a public works contractor. The structures which are of timber, are centrally heated, have proper sanitary accommodation, cooking appliances and generally well equipped. Frequent inspections were made during the year. The conditions generally were clean and orderly. An undertaking has been given to remove the buildings on the completion of the contract.

Slum Clearance.

Since the Council commenced their slum clearance programme in 1930, 153 dwellings have been dealt with formally as individual unfit houses not being repairable at reasonable expense. Of these, 108 have been demolished, 3 have been closed, 27 have been rendered fit in accordance with written undertakings accepted by the Council, and 15 are awaiting completion of action.

There are two areas in the Santon district which, owing to their close proximity to the steelworks and their consequent exposure to intense atmospheric pollution, it is proposed early next year, when the measurement of the atmospheric pollution is completed, to schedule as Clearance Areas. About 72 houses are involved.

Overcrowding.

The following is a statement showing the position of overcrowding at the end of the year:—

(a)	(1) Number of dwellings overcrowded at end of year	63
	(2) Number of families dwelling therein	69
	(3) Number of persons dwelling therein	543
(b)	Number of new cases of overcrowding reported during the year	45
(c)	(1) Number of cases of overcrowding relieved during the year	56
	(2) Number of persons concerned in such cases	292
(d)	Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	2

Of the 56 cases of overcrowding abated, 8 were effected by the removal of lodgers; 2 followed the removal of sub-tenants from Corporation houses; 9 after the removal of sub-tenants from privately owned houses; 16 by removal to larger private houses; 12 by the reduction of families through marriages, deaths, joining H.M. Forces; 4 to being provided with rehousing accommodation in Corporation houses and 5 by other means.

The Council, through a contractor, commenced the building of 30 houses to accommodate large overcrowded families. None of these were completed at the end of the year. It is expected that these will be ready for occupation early in 1939, and that by careful handling, smaller overcrowded families will be relieved by putting them into houses vacated by the larger overcrowded families. It is pleasing to record that there has been a happy and useful co-operation between the Health Committee and the Housing Committee in relieving cases of overcrowding and securing the removal of families living in insanitary or unsatisfactory housing conditions.

Eradication Of Bed Bugs.

During the year reports were received of infestations by bed bugs concerning thirty houses. In all cases the Corporation arranged for the houses to be sprayed with insecticide and afterwards fumigated with proprietary brands of fumigators specially made for the purpose. In two cases it was found necessary to carry out the spraying and fumigating twice. In addition to treating the affected houses the tenants are given type-written advice concerning bugs and how to eradicate them. The owners are also interviewed and given advice. In the case of the worst infestations the owners are asked to remove all skirting boards, back moulding, etc., and to remove all wallpapers, to cut out all cracks and crevices in the plaster and to take up floor boards, after a room has been sprayed but before fumigation is carried out.

There were no cases of bugs reported in Corporation houses. If the Corporation Estate Agent has any reason to suspect that a prospective tenant of a Corporation house is likely to import bugs into a Corporation house, he issues to him a type-written circular advising him to seek the assistance of the Health Department and warning him that the key of the new house will only be handed to him after the Health Department is satisfied, by inspection on the morning of removal, that all furniture and other goods are clean and free from infestation.

INSPECTION AND SUPERVISION OF FOOD:

MILK SUPPLY.

(a) Dairies, Cowsheds And Milkshops.

There are within the Borough 25 premises registered for the sale of milk by retail, and eleven persons registered as wholesale producers of milk. There is only one person in the district licensed to produce accredited milk. Twenty six inspections were made regarding the milk shops and 15 inspections regarding the producers' premises.

(b) Veterinary Inspections.

Until April of the year under review this work was carried out by the County Council. They did four inspections each year and a copy of the veterinary officer's report was supplied to the Scunthorpe Council after each inspection. The work is now carried out by veterinary inspection under the direct control of the Ministry of Agriculture, who are to carry out inspections twice a year instead of the quarterly inspection as carried out by the County Council. Although the Ministry of Agriculture has been asked to give a service at least as good as that which was given prior to their taking over the work, they refuse to give more than a half yearly service. This attitude is to be deplored, the more so as it comes from a Government department whose duty is to improve the health and safe condition of the country's milch cows.

During the year an inspector of the Ministry of Agriculture carried out the following inspections of milch cows within the Borough :—

19-8-38 2 herds visited, 15 cows examined, one case of tuberculosis found and confirmed.

11-11-38 10 herds visited, 109 cows examined, four cases of tuberculosis found and confirmed. 3 cases of mastitis found.

One accredited herd in the borough was examined twice in the same period, viz. — 7.6.39 and 4.10.38.

(c) Bacteriological And Biological Examination Of Milk By The Health Department.

The undermentioned samples of milk were collected and sent for bacteriological examination, methylene tests and guinea pig inoculation tests for evidence of tuberculosis All samples were packed in ice and delivered to the bacteriologist the same day as collected from the milk dealers. The sample of graded milks were selected at random from retailers and delivered to the bacteriologist, in the sealed bottles as supplied to the public :—

Tuberculin Tested	6 samples
Accredited	13 samples
Pasteurised	17 samples
Sterilized	2 samples
Raw Milk	27 samples
Ice Cream	8 samples
Total	73 samples

The results of the examinations are given in Table 22.

Of the 73 samples sent, one was found to show evidence of Tuberculosis. As soon as the report on the tuberculous sample was received the County Council were notified. They in turn notified the Ministry of Agriculture, who sent one of their veterinary inspectors to examine all the cows on the farm where the milk was produced. The Inspector failed to discover any suspicious cows. He took 3 group samples from 33 cows and sent them for guinea pig inoculation. At the end of the year the results of these tests were not known. In the meantime, the milk was being sold for human consumption. Whilst it is recognised that some time must elapse before the individual cow or cows can be located, it does not seem a right policy to prolong that time by taking group samples. In our view, samples from each cow on a suspected farm should be taken and submitted for test as soon as the veterinary inspector fails to locate the offending cow by clinical examination. The only saving effected in this instance was the difference in the cost of testing 14 samples as against the cost of testing 33 samples. The diminution of the risk of tuberculous milk being sold for human food for at least one additional month is surely worth the extra cost.

(d) Milk (Special Designations) Order 1936.

The following licences were granted during the year :—

To bottle and sell Tuberculin Tested	1
To sell Accredited	1
To Pasteurise milk	1
Supplementary Licence to retail Pasteurised milk	1

INSPECTION OF MEAT AND OTHER FOODS.

(a) Slaughterhouses.

There are eleven private slaughterhouses situated in various parts of the Borough and one public slaughterhouse situated in the centre of the town which is owned and controlled by the Local Authority. With two exceptions, the general standard of all the slaughterhouses including the municipal one is bad. Of the two exceptions, one can be described as fair and the other as moderate. After years of patient endeavour the Council have at last been able to acquire a suitable site and have obtained the sanction of the Minister of Health to purchase. Plans and specification for a new public abattoir have been prepared by the Borough Engineer and a tender for its erection has been accepted subject to the approval of the Minister of Health, but the approval had not been given at the end of the year. In the meantime, slaughtering is being carried out in unsuitable premises and the congestion in the public slaughterhouse has increased. One butcher, probably anticipating difficulty in securing permission to erect a private slaughterhouse within the Borough has purchased a parcel of land outside the Borough boundary and has received the permission of the Rural District Council to erect a private slaughterhouse. The difficulties of efficient meat inspection in the rural area can be appreciated, but it is not easy to understand why these difficulties should be increased by the granting of a new licence in a place which is readily accessible to Scunthorpe and to a person who retails a fair amount of the meat he kills within the Borough.

Of the total number of animals slaughtered within the Borough 32.6 per cent. were slaughtered in the public slaughterhouse, the remaining 67.4 per cent. being dealt with in the private slaughterhouses. The work of meat inspection continues to absorb a considerable amount of the department's time, much of which is outside ordinary office hours. It is anticipated that much of this time will be saved when the new abattoir is erected and the hours of slaughter regulated.

The standard of quality of the meat dressed within the Borough is above the average for an industrial area. Of 2603 beast killed only 308 or 11.8% were cows. The percentage of the total animals killed that were examined is as follows:—Beast 100%, sheep 98.9%, pigs 99.4%, calves 100%. The percentage of all animals examined was 99.3%. The amount of meat surrendered after examination during the year as being unfit for food was 18 tons 9 cwts. 2 qrs. 7 lbs. Details of animals slaughtered, inspected and diseased meat found are contained in Tables 19, 20 and 21 attached to this report.

(b) Butchers' Shops, Market Stalls and Food Preparing Premises.

Butchers' shops and food preparing premises are visited periodically and market stalls are inspected regularly on Friday and Saturday each week with a view to the detection of diseased or unsound food and in regard to general cleanliness and suitability.

During the month of December the whole of the butchers' shops, food preparing premises, market food stalls and hawkers' vans were inspected. In no case was there found to be any contravention of the law. As it will be necessary after September, 1939, for all premises to be registered where potted meat, sausage, brawn or cooked meats, etc., are manufactured, opportunity was taken of the visits to acquaint the various people of the sanitary standards which will be required before registration can be recommended.

There are 42 butchers' shops within the Borough. 38 have their own modern refrigerators installed and one has an ice-box. The approximate total refrigeration capacity is equal to 10,000 cubic feet.

The approximate winter consumption of meat each week within the Borough is as follows:—

English Bullock and Heifer Beef: 2,866 stones equal to 57 Beasts averaging 50 stones each.

English Cow Beef: 520 stones equal to 11½ Beasts averaging 45 stones each.

Imported Frozen or Chillen Beef: 712 stones equal to 14 Beasts averaging 50 stones each.

English Mutton: 10,164lbs. equal to 157 carcases averaging 65lbs. each.

Imported Mutton: 5,698lbs. equal to 142 carcases averaging 40lbs. each.

English Pork: 2,257 stones equal to 225 pigs, averaging 10 stones each (14lbs. to the stone).

Imported Pork: 24 stones equal to 2 pigs, averaging 12 stones each (14lbs. to the stone).

Of the total beef sold within the Borough 17.34% was imported. Of the total mutton sold 36.4% was imported and of the total pork sold 1% was imported. The proportion of English beef sold in the Borough but slaughtered outside was equal to 26.5% of the total. Of the total amount of English mutton sold within the Borough 25.6% was slaughtered outside. The quantity of pork sold within the Borough but slaughtered outside was equal to 18%. The amount of English beef killed in the Borough and

sold outside was equal to 13.6% of the total. The English mutton killed within the Borough and sold outside was 10.6% of the total and of pork killed within the Borough 5.7% was sold outside.

The standard quality of meat sold in the Borough was good, only about 15% of it being cow beef.

The investigation showed that there are 187 shops and market stalls at which "made up" foods are sold. Of this total, 50 make it up on their own premises and 137 obtain their supplies ready made up from wholesalers or are branch shops of some of the 50 who make up their own foods. The general standard of suitability of the rooms used for preparing the foods is poor, but the persons concerned expressed a desire to amend and improve their food preparing premises in order to fit them for registration. Of the 187 shops and stalls visited, 55 are butchers (including 13 market stalls), 41 are grocers, 25 are bakers and confectioners (including 5 market stalls), 57 are small general dealers, 3 are hawkers and 6 are wet fish shops.

The undermentioned table shows the approximate average weekly (winter) consumption of the various foods:—

Quantities Per Week.

	SAUSAGE		POTTED
	Pork	Beef	MEAT
	Tons.Cwts.Qrs.lbs.	Cwts.Qrs.lbs.	Tons.Cwts.Qrs.lbs.
	4 2 2 17	1 3 2 25	12 1 0
Consumption per 100 popn. per week...	21.45lbs.	6.24lbs.	3.2lbs.

	BRAWN	HASLET	PORK PIE
	Cwts.Qrs.lbs.	Cwts.Qrs.lbs.	Tons.Cwts.Qrs.lbs.
	17 0 25	11 2 8	1 15 1 16
Consumption per 100 popn. per week...	4.53lbs.	3.05lbs.	9.31lbs.

Of the above quantities of food sold, approximately 892 lbs. of pork sausage, 928 lbs. of beef sausage, 610 lbs. of potted meat, 355 lbs. of brawn, 119 lbs. of haslet, 683 lbs. of pork pie are made outside the Borough.

Potted meat appears to be sold from every small sweet and general shop in the town. Of the 57 general dealers selling potted meat 38 sell only 5 lbs. or less weekly.

(c) Public Health Act 1875 (Section 116).

A live cow sent for sale in the public market was seized. The animal, which was in a very emaciated condition, was taken to the public abattoir and slaughtered. The post mortem examination showed it to be in an advanced stage of tuberculosis. No further action was taken after reporting to the Health Committee.

(d) Slaughter Of Animals Act, 1933.

There are 87 licensed slaughtermen in the district.

One prosecution was taken against a butcher for slaughtering an animal without having been the possessor of a slaughterman's licence. As the defendant had been committed to the Quarter Sessions on a more serious charge and was on bail, the hearing was adjourned until after the Quarter Sessions case had been decided. No further police court action has been taken.

Food And Drugs Acts.

The provisions of these Acts are administered in the Borough by the County Council through the police. The Borough Council have made application to the Minister of Health to become the Food and Drugs authority for their own district when the Food and Drugs Act 1938 comes into operation on the 1st October 1939. It is not anticipated that there will be any opposition from the County Council.

Thanks are extended to the local Superintendent of Police who has courteously supplied the following information relating to the samples taken within the Borough during 1938.

SAMPLES TAKEN BY POLICE UNDER FOOD AND DRUGS ACTS in Borough of Scunthorpe during 1938.

New Milks	39
Tea	4
Self Raising Flour	3
Tinct. of Iodine	2
Potted Meat	2
Barley	2
Flour	2
Yeast	1
Butter	1
Cocoa	1
Margarine	1
Cream	1
Ice Cream	1
Jam	1
Bread	1
Coffee	1
Pepper	1
Cheese	1
Epsoms Salts	1
Baking Powder	1
Sugar	1
Rice	1
Vinegar	1
Sausage	1
Arrowroot	1
Beer	1
Wine	1
Total	74

All were genuine with the exception of four New Milks. The Analysis of each of these was as follows:—

	W.16	W.51	W.64	W.114
Milk Fats ...	3.18	3.36	3.23	3.45
Milk Solids ...	8.20	8.33	7.39	8.37
Nat. Water ...	85.12	86.31	76.38	86.68
Ext. Water ...	3.50	2.00	13.00	1.50

Proceedings were taken against Vendor of W.64 only. At Scunthorpe Petty Sessions on 24th August, 1938, he was fined £2.

Table 14.

WORKPLACES AND FACTORIES IN THE BOROUGH, 1938.

Boot Repairing	15
Plumbers	3
Dressmakers and Milliners	3
Tailors	6
Joiners	4
Saddlers	1
Monumental Masons	4
Upholstering	3
Cycle Repairing	5
Tinsmith	3
Watch Repairers	1
Blacksmiths, Wheelwrights	3
Garages	10
Galvanising Plant	1
Offices	75
	137

COMMON LODGING HOUSE.

Inspections made	208
Notices	—
Cleansed and Limewashed	2
Other Defects remedied	—

GENERAL INSPECTIONS.

No. of Inspections	9,511
No. of Nuisances abated	3,513

	Park	Crosby	East	Town	West	Brumby	Frodingham	Ashby	
No. of Informal Notices	26	46	96	90	47	9	27	100	441
No. of Statutory Notices	6	8	20	26	6	—	8	11	85
No. of Warning Letters	1	2	8	4	1	—	1	4	21
No. of Complaints received	5	13	39	26	19	4	4	10	120

Total Number of Nuisances during the year:—

(1) Abated as result of informal action	3,258
(2) Reported to Council	
Statutory Notices issued	85
Statutory Notices not issued	365

DETAILS OF NUISANCES ABATED.

	After Informal Intimation.	After Statutory Notice.
Smoke	—	13
Accumulation of Refuse	32	—
Foul Pigs and other animals	2	—
Dampness	58	29
Yards repaired or repaved	72	37
Other Nuisances	3,037	176

Table 15.

FACTORIES AND WORKPLACES.

Premises.	Number of Inspections.	Written Notices.	Occupiers Prosecuted.
Factories (including Factory Laundries)	162	—	—
Workplaces (offices)	75	40	—
Total	237	40	—

DEFECTS FOUND IN FACTORIES AND WORKPLACES.

Particulars.	Number of Defects. Found.	Remedied.	Referred to H.M. Inspector.	Prosecutions instituted.
Want of Cleanliness ...	43	31	—	—
Want of Ventilation ...	7	5	—	—
Other Nuisances	13	7	—	—
Sanitary Accommodation: Insufficient	7	4	—	—
Unsuitable or defective	53	21	—	—
Not separate for sexes	3	2	—	—
Illegal occupation of underground bakehouse	—	—	—	—
Total	126	72	—	—

Table 16. IMPROVEMENTS.

	Park	Crosby	East	Town	West	Brumby	Frodingham	Ashby	Totals
Eaves, Gutters, etc., repaired ...	3	17	40	13	21	1	21	46	162
Roofs repaired	3	6	42	11	18	—	18	20	118
Yard paving repaired	—	25	30	16	3	2	11	23	110
House floors repaired	—	2	17	6	1	—	14	16	56
Dampness excluded	3	21	23	11	3	1	4	21	87
Yards cleansed	—	3	—	—	—	—	—	—	3
Houses cleansed	—	—	—	3	1	—	1	1	6
Nuisance from animals	—	1	—	1	—	—	—	—	2
Accumulation of Manure	1	—	1	—	—	—	—	—	2
Offensive Accumulation	11	—	11	5	1	—	2	—	30
New Sinks fixed	—	4	5	2	1	—	6	2	20
Sink Waste Pipes repaired	—	2	1	2	1	1	—	—	7
Pumps repaired	—	1	—	—	—	—	—	1	2
Houses supplied with Town's Water (includes new houses)	158	5	—	1	199	94	132	288	877
General Defects remedied	16	54	199	117	42	3	19	142	592
Overcrowding abated	8	4	12	9	—	2	10	9	54
W.C. Flushing Tanks repaired ...	3	4	10	6	7	—	5	4	39
New W.C. Basins fixed	1	4	1	2	—	—	—	2	10
New W.C. Structures built	—	—	7	—	—	—	—	—	7
Pail Closets converted to W.C.'s ...	—	1	7	2	—	—	—	32	42
Smoke nuisances dealt with	—	4	3	—	1	—	2	3	13
New dustbins provided	55	106	98	153	122	5	21	81	645
New privy pails	—	—	—	—	—	—	2	2	4
Inspection Chambers provided ...	1	3	—	1	3	—	—	3	11
Drains repaired or amended	2	11	12	12	6	1	12	7	63
Drains cleansed	20	44	122	172	55	13	41	22	489
Drains reconstructed	—	—	1	—	—	—	—	—	1
New Drains inspected	—	9	8	2	—	—	6	33	58
New Sculleries	—	—	3	—	—	—	—	—	3

Table 17.

DISINFECTION.

Rooms disinfected	194
(a) Ordinary infectious diseases	185
(b) Tuberculosis	9
Beds disinfected or destroyed	133
(a) Ordinary infectious diseases	127
(b) Tuberculosis	6
Beds disinfected or destroyed for other reasons	9
Rooms disinfected for other reasons	30
Blankets and Sheets, etc., disinfected	1351
Pillows and Bolsters disinfected	
Articles of clothing disinfected	29
Total—disinfected or destroyed	1380

DRAINAGE AND SEWERAGE.

Closets.	
Number of houses with privy vaults in district	nil
Number of houses with pail closets in district	85
Number of pail closets repaired	4
Number of houses with water closets	11603
Number of water closets substituted for pail closets	42
Number of water closets repaired	56
Drains.	
Drains examined, tested and exposed	58
Drains unstopped, repaired, trapped, etc.	489
Waste pipes, rain water pipes, disconnected, repaired, etc.	162
Drains reconstructed	1
Sewers.	
New lengths of sewers laid	9375 yds.

DETAILS OF INSPECTION OF COWSHEDS AND MILKSHOPS.

Cowsheds.	
Number of cowsheds on register	12
Number of inspections	15
Contraventions of regulations	7
Contraventions remedied	4
Number of milch cows in district	113
Dairies and Milkshops.	
Number of milk shops on register	25
Number of inspections	26
Contravention of regulations	nil
Contraventions remedied	nil

Table 18.

HOUSING.

Number of New Houses erected during the year :—

(a) Total	773
(b) With State assistance under the Housing Acts :	
1. By Local Authority	50
2. By other bodies or persons	723

1. Inspection of dwelling-houses during the year :—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts	1865
(b) Number of inspections made for the purpose	4375
(2) (a) Number of dwelling-houses (included under sub-head (1) above which were inspected and recorded under the Housing consolidated Regulations, 1925)	78
(b) Number of inspections made for the purpose	256
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for habitation	14
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to b ein all respects reasonably fit for human habitation...	64

2. Remedy of Defects during the Year without service of Formal Notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	976

Table 18.—continued.

3. Action under Statutory Powers :—

A—Proceedings under sections 9 and 10 of the Housing Act, 1936 :

(1) Number of dwelling-houses in respect of which notices were served requiring repairs 8

(2) Number of dwelling-houses which were rendered fit after service of formal notices :

1. By owners 8

2. By Local Authority in default of owners ... nil

B—Proceedings under Public Health Acts :

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 182

(2) Number of dwelling-houses in which defects were remedied after service of formal notices :

1. By owners 140

2. By Local Authority in default of owners... 42

C—Proceedings under section 11 and 13 of the Housing Act, 1936 :

(1) Number of dwelling-houses in respect of which Demolition Orders were made 14

(2) Number of dwellinghouses demolished in pursuance of Demolition Orders 20

D—Proceedings under section 12 of the Housing Act, 1936 :

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made ... ... nil

(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit ... ... nil

Table 19.

PARTICULARS OF ANIMALS SLAUGHTERED AND INSPECTED IN WARD ORDER.

	Park.	Crosby.	East Private.	East Public.	Town.	West.	Brumby.	Frodingham.	Ashby.	Private Houses.	Total.
Cattle											
Slaughtered	—	273	943	1267	35	—	—	—	85	—	2603
Examined	—	273	943	1267	35	—	—	—	85	—	2603
Sheep											
Slaughtered	—	987	2426	2908	101	161	—	—	502	—	7085
Examined	—	971	2372	2905	101	161	—	—	498	—	7008
Pigs											
Slaughtered	—	992	1981	1721	10	180	—	—	597	4	8485
Examined	—	987	1939	1721	10	179	—	—	597	4	8437
Calves											
Slaughtered	—	27	26	87	—	1	—	—	1	—	142
Examined	—	27	26	87	—	1	—	—	1	—	142
Total Slaughtered ...	—	2279	8376	5983	146	342	—	—	1185	4	18315
Total Examined ...	—	2258	8280	5980	146	341	—	—	1181	4	18190
No. of Slaughterhouses	—	2	3	1	1	1	—	—	4	—	12
No. of Inspections ...	—	350	2195		86	201	—	—	350	—	3182
Cleansed & Limewashed	—	8	12	4	4	4	—	—	16	—	48

Table 20.

CARCASES INSPECTED AND CONDEMNED.

	Cattle excluding Cows.	Cows.	Calves.	Sheep and Lambs.	Pigs
Number killed	2295	308	142	7085	8485
Number inspected	2295	308	142	7008	8437
All diseases except Tuberculosis. Whole carcases condemned ...	3	7	1	15	2
Carcases of which some part or organ was condemned	231	18	2	19	118
Percentage of the number inspected affected with diseases other than T.B.	10.1	8.1	2.1	0.47	1.4
Tuberculosis only. Whole carcases condemned	4	10	—	—	11
Carcases of which some part or organ was condemned	190	99	5	—	600
Percentage of the number inspected affected with T.B.	8.3	35.3	3.5	—	7.2

Table 21. UNFIT MEAT SURRENDERED.

The following table gives the Amount of Meat surrendered after examination.
It is set out in Month order and gives the weight in lbs. and disease or cause of its unfitness.

Month.	Tuberculosis.	Cirrhosis.	Actinomycosis.	Abscess.	Johnes Disease.	Inflammation.	Pleurisy.	Flukes.	Dropsy.	Fatty Degeneration.	Cysts.	Pericarditis.	Nephritis.	Bruised.	Septic Metritis.	Peritonitis.	Moribund.	Necrosis.	Melanosis.	Erysipelas.	Tons.	Cwts.	Qrs.	Lbs.
Jan.	2269	84	84	44	—	9	—	—	—	—	3	3	—	52	—	—	—	—	—	—	1	2	3	0
Feb.	1364	35	—	42	—	10	—	14	—	—	3	—	3	—	—	—	56	—	—	—	0	13	2	14
Mar.	1759	62	196	42	—	—	50	58	—	—	—	—	—	700	280	—	56	—	—	—	1	8	2	11
Apr.	1347	117	728	45	—	31	—	—	—	—	—	3	3	84	—	644	—	—	—	—	1	6	3	6
May	1796	128	252	14	—	—	3	56	—	14	8	8	—	—	—	—	—	—	16	—	1	0	1	27
June	2320	168	308	45	—	19	—	42	—	14	6	6	10	—	—	—	—	3	14	—	1	6	1	15
July	2882	103	168	101	—	160	—	7	364	14	2	—	5	—	—	—	—	5	—	—	1	14	0	4
Aug.	2429	154	84	42	—	148	—	—	—	—	14	—	—	—	—	—	—	—	—	—	1	5	2	15
Sept.	3665	189	112	14	280	—	115	14	532	—	12	—	10	—	—	—	400	—	14	—	2	7	3	9
Oct.	4560	168	98	56	—	14	—	70	—	—	5	—	—	—	—	—	—	—	—	—	2	4	1	15
Nov.	3518	112	84	65	—	52	—	105	490	14	5	—	—	3	—	—	—	14	—	140	2	1	0	10
Dec.	2942	70	84	—	—	56	14	352	—	—	48	6	—	777	—	—	—	—	—	—	1	17	3	21
Total																					18	9	2	7

OTHER FOOD SURRENDERED.

		cwts.	qrs.	lbs.
Chilled Beef	Putrefaction ...	1	3	4
Pears	Unsound	1	0	0
Tongue	Putrefaction ...			24
Ham and Bacon	Putrefaction ...		2	24
Beef, Pork and Mutton	Contaminated ...	3	1	14
Peas	Fermenting ...	8	0	0
Peaches	Decomposed ...			15
Pork	Putrefaction ...		1	14
Rabbits	Put. & Con. ...	4	3	8
Apples	Unsound		1	12
Sausages	Unsound		1	2
	Total ...	19	0	1

Table 22. **BACTERIOLOGICAL ANALYSIS OF MILK SAMPLES, 1938.**

Date.	Nature of Sample.	Bacteriologist's Report. Decolourisation of Methylene Blue.	Presence of B. Coli.	Bacterial Count.	Phosphatase Test.	Presence of Tubercle Bacilli (biological test).	Remarks.
March,	Pasteurised.	—	1/10th m.l.	1,400.	Negative.	Absent.	Satisfactory.
1938.	Accredited.	More than 5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
	Accredited.	5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
	Tuberculin Tested.	5½ hrs.	1/100th m.l.	—	—	Absent.	Methylene Blue Test passed.
	Raw.	More than 5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
	Raw.	1 hour.	1/100th m.l.	—	—	Absent.	Unsatisfactory.
	Raw.	½ hour.	1/100th m.l.	—	—	Absent.	Very unsatisfactory.
	Raw.	5½ hrs.	1/100th m.l.	—	—	Absent.	Unsatisfactory. Methylene Blue Test passed.
May,	Pasteurised.	More than 5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
1938.	Pasteurised.	No test.	Absent.	33,400.	—	Absent.	Satisfactory.
	Pasteurised.	No test.	Absent.	960,000.	—	Absent.	Unsatisfactory.
	Raw.	More than 5½ hrs.	1/100th m.l.	—	—	Absent.	Unsatisfactory.
	Accredited.	More than 5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
	Accredited.	More than 5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
	Pasteurised.	No test.	1/100th m.l.	16,000.	Negative.	Absent.	Unsatisfactory.
	Accredited.	More than 5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
	Accredited.	More than 5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
	Tuberculin Tested.	More than 5½ hrs.	1/100th m.l.	—	—	Absent.	Unsatisfactory. Methylene Blue Test passed.
	Raw.	2½ hrs.	1/100th m.l.	—	—	Absent.	A very bad milk.
	Raw.	3½ hrs.	1/100th m.l.	—	—	Absent.	A bad milk.

Table 22—continued. **BACTERIOLOGICAL ANALYSIS OF MILK SAMPLES, 1938.**

Date.	Nature of Sample.	Bacteriologist's Report. Decolourisation of Methylene Blue.	Presence of B. Coli.	Bacterial Count.	Phosphatase Test.	Presence of Tubercle Bacilli (biological test).	Remarks.
	Raw.	More than 5½ hrs.	Absent.	—	—	Absent.	Satisfactory.
	Raw.	More than 5½ hrs.	1/100th m.l.	—	—	Absent.	Not satisfactory.
	Pasteurised.	No test.	Absent.	24,680.	—	Absent.	Satisfactory.
	Pasteurised.	No test.	Absent.	740.	—	Absent.	Satisfactory.
	Sterilised.	No test.	Absent.	—	—	Absent.	Satisfactory.
	Pasteurised.	No test.	Absent.	1,360.	—	Absent.	Satisfactory.
	Pasteurised.	No test.	Absent.	720.	—	Absent.	Satisfactory.
	Raw.	More than 4½ hrs.	Absent.	—	—	Absent.	Satisfactory.
June, 1938.	Pasteurised.	—	Absent.	10,400.	—	—	Satisfactory. No enteric organisms found.
	Pasteurised.	—	Absent.	2,100.	—	—	Satisfactory. No enteric organisms found.
	Raw.	—	1/100th m.l.	1,250,000.	—	—	Unsatisfactory. No enteric organisms found. A very heavy growth of B. Coli on culture medium.
	Raw.	—	1/100th m.l.	118,000.	—	—	Unsatisfactory. No enteric organisms found. Moderate growth of B. Coli.
	Pasteurised.	—	1/100th m.l.	26,000.	—	—	Unsatisfactory. No enteric organisms found. Heavy growth of B. Coli.

Table 22—continued. BACTERIOLOGICAL ANALYSIS OF MILK SAMPLES, 1938.

Date.	Nature of Sample.	Bacteriologist's Report. Decolourisation of Methylene Blue.	Presence of B. Coli.	Bacterial Count.	Phosphatase Test.	Presence of Tubercle Bacilli (biological test).	Remarks.
	Raw.	—	Absent.	70,000.	—	—	Satisfactory. No enteric organisms found.
Aug., 1938.	Accredited.	3½ hrs.	1/10th m.l.	32,000.	—	Absent.	Satisfactory. Methylene Blue Test adverse.
	Tuberculin Tested.	1½ hrs.	1/100th m.l.	No test.	—	Absent.	Very unsatisfactory.
	Raw.	1½ hrs.	1/100th m.l.	4,800,000.	—	Absent.	Very unsatisfactory.
	Pasteurised.	—	1/100th m.l.	31,000.	Negative.	Absent.	Unsatisfactory.
	Accredited.	5½ hrs.	Absent.	6,960.	—	Absent.	Satisfactory.
	Accredited.	1½ hrs.	1/10th m.l.	2,400,000.	—	Absent.	Unsatisfactory.
	Pasteurised.	—	1/10th m.l.	11,000.	Negative.	Absent.	Fairly satisfactory.
	Raw.	1½ hrs.	1/100th m.l.	No test.	—	Absent.	Most unsatisfactory.
	Raw	4½ hrs.	1/100th m.l.	No test.	—	Absent.	Unsatisfactory. Methylene Blue Test passed.
Aug., 1938.	Raw.	5½ hrs.	1/100th m.l.	No test.	—	Absent.	Unsatisfactory. Metbylene Blue Test passed.
	Raw.	5 hrs.	1/10th m.l.	No test.	—	Absent.	Satisfactory.
	Raw	4 hrs.	Absent.	No test.	—	Absent.	Satisfactory. Methylene Blue Test just below standard.
	Raw.	1½ hrs.	1/100th m.l.	No test.	—	Absent.	Most unsatisfactory.
	Raw.	5 hrs.	1/100th m.l.	No test.	—	Absent.	Unsatisfactory. Methylene Blue Test passed.
	Raw.	—	1/100th m.l.	No test.	—	Absent.	Unsatisfactory. Metyhlene Blue Test passed.

Table 22—continued. **BACTERIOLOGICAL ANALYSIS OF MILK SAMPLES, 1938.**

		Bacteriologist's Report.					
Date.	Nature of Sam le.	Decolourisation of Methylene Blue.	Presence of B. Coli.	Bacterial Count.	Phosphatase Test.	Presence of Tubercle Bacilli (biological test).	Remarks.
Nov., 1938.	Accredited	Not decolourised.	1/100th m.l.	No test.	—	Absent.	Unsatisfactory. Metyhlene Blue Test passed.
	Accredited.	Not decolourised.	Absent.	No test.	—	Definite evidence.	Bad.
	Raw.	2½ hrs.	Absent.	No test.	—	Absent.	Doubtful. Methylene Blue Test adverse.
	Raw.	4½ hrs.	1/10th m.l.	No test.	—	Absent.	Satisfactory. Methylene Blue Test not quite satisfactory.
	Pasteurised.	—	No test.	1,720.	Negative.	—	Satisfactory.
	Pasteurised.	—	No-test.	28,800.	Negative.	—	Satisfactory.
	Raw.	1 hr.	1/100th m.l.	No test.	—	Absent.	A very bad milk.
	Tuberculin Tested.	Not decolourised.	1/100th m.l.	No test.	—	—	Unsatisfactory. Methylene Blue Test passed.
	Pasteurised.	—	No test.	5,600.	Negative.	—	Satisfactory.
	Accredited.	Not decolourised.	1/10th m.l.	3,600.	—	—	Satisfactory.
	Tuberculin Tested.	Not decolourised.	Absent.	900.	—	—	Very satisfactory.
	Tuberculin Tested.	5½ hrs.	Absent.	2,800.	—	—	Very satisfactory.
	Sterilised.	—	Absent.	40.	Negative.	—	Satisfactory.
	Raw.	2½ hrs.	Absent.	No test.	—	Absent.	Satisfactory. Methylene Blue Test adverse.
	Raw.	—	1/100th m.l.	No test.	—	—	A dirty milk.
	Raw.	1½ hrs.	1/100th m.l.	No test.	—	Absent.	A dirty milk.

Table 23.

Cleansing Costs for year ending March 31st, 1939.

HOUSE AND TRADE REFUSE.

	£	s.	d.	£	s.	d.
Transport.						
Depreciation on No. 3 Ford (5 years old) ...	—	—	—			
,, ,, No. 4 Ford (4 years old) ...	60	0	0			
* ,, ,, No. 5 Ford (4 years old) ...	56	2	0			
,, ,, No. 6 Ford (4 years old) ...	64	13	9			
,, ,, No. 7 Ford (4 years old) ...	63	15	0			
,, ,, No. 2 Freighter 15 years old)..	—	—	—			
,, ,, No. 3 Freighter (4 years old)..	65	0	0			
*Licences and Insurances, Fords and Freighters	275	0	0			
*Repairs and maintenance (including tyres)	218	16	0			
*Petrol and Oil	623	19	0			
Wages of Drivers	1045	19	4			
*Cleaning and Greasing	44	18	2			
Wages.						
Refuse collectors	2671	8	10			
†Supervision	207	0	8			
†Holiday Pay	137	10	0			
Establishment.						
†Insurance (Workmen's compensation)	249	2	8			
Total ...	5783	5	5	5783	5	5
Less Receipts.						
*Haulage on conversion of pail closets	4	8	0			
Miscellaneous	18	11	9			
Trade Refuse	166	5	3			
*Hire of Lorry	18	14	0			
	207	19	0	207	19	0
Nett Cost ...				5575	6	5

Total amount of refuse collected during year—11,455 Tons.
Cost per ton (including depreciation but excluding capital expenditure—9s. 8.81d.

Table 23.—continned.

HOUSE AND TRADE REFUSE DISPOSAL.

	£	s.	d.	£	s.	d.
Depreciation on Hi-lift excavator (6 years life)	78	3	4			
Wages	614	12	8			
Maintenance of Tips and Baling paper and Burning paper ...	104	6	5			
Team Labour	3	3	9			
*Petrol and Oil	103	0	0			
†Supervision and Holiday Pay... ...	71	19	6			
Purchase and Leading of soil ...	61	5	0			
Maintenance and repairs to Excavator	16	4	2			
Driving Excavator	68	9	6			
Establishment.						
Insurance (Workmen's Compensation and Public Liability), National Insurance, Depot Charges (Equipment, Renewals and Repairs, etc.)	52	0	9			
Total ...	1173	5	1	1173	5	1
Less Receipts.						
Miscellaneous	3	17	5			
*Disposal of Trade Refuse	41	11	4			
Rent of Land	42	15	6			
Sale of Waste Paper	51	10	3			
	139	14	6	139	14	6
Nett Cost ...				1033	10	7

Total Quantity of Refuse disposed of—11,800 Tons.

Cost per ton for disposal—1s. 9.02d.

Table 24.

NIGHTSOIL COLLECTION AND DISPOSAL.

	£	s.	d.	£	s.	d.
Transport.						
*Depreciation on No. 5 Ford (4 years life)	3	18	0			
*Licence and Insurance of Ford ...	3	3	0			
*Repairs and Maintenance of Ford...	2	10	0			
*Petrol and Oil	8	16	8			
Wages of drivers	24	4	9			
*Cleaning and Greasing	3	2	6			
Wages.						
Collectors and disposal men	29	8	3			
†Supervision and Holiday Pay	5	2	0			
Scavenging Dawes Lane...	5	1	0			
Water	3	10	0			
Establishment.						
†Insurance (Workmen's Compensation and Public Liability), National Insurance, Depot Charges (Equipment, Renewals and Repairs, etc.)	3	13	10			
	92	10	0	92	10	0
Less Receipts.						
*Haulage on conversion of pail closets		6	0			
*Hire of Lorry	1	6	0			
Collection and Disposal of nightsoil	1	1	6			
Miscellaneous		4	10			
	2	18	4			
Nett Cost ...				89	11	8

Total Amount of Nightsoil collected and disposed of—128 Tons.
Cost per ton for collection and disposal—14s. 0d.

* The figures represent the following proportion of the whole cost and are based on actual mileage in each service.
Refuse Collection 93.5%. Nightsoil Collection is 6.5%.
The petrol and oil consumption is that which is actually used on each service the proportions being as follows:—
Refuse Collection 84.8%. Nightsoil Collection 1.2%.
Refuse Disposal 14.0%.

† Establishment charges are based on the wages in each service, the proportions being as follows:—
Refuse Collection 81.72%. Nightsoil Collection 1.18%.
Refuse Disposal 17.07%. Nightsoil Disposal .03%.

Table 25.

Nightsoil Collection and Disposal Costs for the year ended 31st March, 1939.

PARTICULARS	TOTAL	
	Including Depreciation or Loan Charges	Excluding Depreciation or Loan Charges
REVENUE ACCOUNT—		
Gross Expenditure	£92 10 0	£88 12 0
Gross Income	£2 18 4	£2 18 4
Net Cost	£89 11 8	£85 13 8
UNIT COSTS—		
Gross Expenditure per ton	14/5.45	13/10.12
Gross Income per ton	5.45	5.45
Net Cost per ton	14/0	13/4.67
Net Cost per 100 houses or premises from which nightsoil is collected	£105 7 10	£100 16 1
RATE POUNDAGE—		
Net Cost equivalent rate in the £	.0936	.0895
Percentage of J to Total Rates in the £	.064%	.061%

Total nightsoil collected in tons 128

Number of houses with pail closets at beginning of 1938 147—85 at end of 1938

Method of Collection :—By one petrol vehicle which has interchangeable refuse and night-soil bodies. Are apportioned as follows :—

Refuse Collection	...	93·5%
Nightsoil „	...	6·5%

Method of Disposal: Brought to Central Depot and discharged into main outfall sewer.

Table 26. SUMMARY OF COSTS. CLEANSING SERVICE.

House and Trade Refuse. Table showing costs for the year ended 31st March, 1939.

ITEM	PARTICULARS	I.—COLLECTION Including Depreciation or Loan Charges	I.—COLLECTION Excluding Depreciation or Loan Charges	II.—DISPOSAL Including Depreciation or Loan Charges	II.—DISPOSAL Excluding Depreciation or Loan Charges	TOTAL Including Depreciation or Loan Charges	TOTAL Excluding Depreciation or Loan Charges
1	2	3	4	5	6	7	8
	REVENUE ACCOUNT—						
A	Gross Expenditure	£5783 5 5	£5473 14 8	£1173 5 1	£1095 1 9	£6956 10 6	£6568 16 5
B	Gross Income	£207 19 0	£207 19 0	£139 14 6	£139 14 6	£347 13 6	£347 13 6
C	Net Cost	£5575 6 5	£5265 15 8	£1033 10 7	£955 7 3	£6608 17 0	£6221 2 11
	UNIT COSTS—						
D	Gross Expenditure per ton	10/1.17	9/6.68	1/11.86	1/10.27	12/1.03	11/4.95
E	Gross Income per ton	4.36	4.36	2.84	2.84	7.20	7.20
F	Net Cost per ton	9/8.81	9/2.32	1/9.02	1/7.43	11/5.83	10/9.75
G	Net Cost per 1,000 population	£132 14 11	£125 7 6	£24 11 9	£22 14 11	£157 6 8	£148 2 5
H	Net Cost per 1,000 houses or premises from which refuse is collected	£471 5 9	£445 2 0	£88 7 4	£80 15 2	£559 13 1	£525 17 2
	RATE POUNDAGE—						
J	Net cost equivalent Rate in the £	5.826	5.502	1.08	.998	6.906	6.5
K	Percentage of J to Total Rates in the £	3.99%	3.77%	.74%	.68%	4.73%	4.45%

1 *a* Total Refuse collected (in tons) (Based on Test Weighing) 10356 tns
b ,, ,, disposed of 10862 ,,
2. Population—Midsummer (Registrar-General) 1937 40270
3. Area (Statute Acres) 7895
4. Weight (in cwts.) per 1,000 population per day (365 days to year) 14·09
‡5 Number of houses and premises 10253
6 Rateable Value £235188
7. Product of Penny Rate £902
8 Total Rates in the £ 11/8d.

Method of Collection—

	No. of Vehicles	Percentage of Refuse Collected
Horse Vehicles	—	—
†Mechanical Vehicles	7	100%
Container System (combination of mechanical & horse vehicles)	—	—

† One of the vehicles has an interchangeable body. The refuse body is taken off at night and a special steel tank is fitted for collection of nightsoil from pail closets. The cost of running this vehicle (apart from Petrol, which is charged on actual consumption) is based on actual mileage, and is apportioned as follows: Refuse Collection 93·5%
Nightsoil ,, 6·5%

Method of Disposal Controlled Tipping

Average length of haul to point of disposal—2¾ miles loaded

Amounts included in Item A in respect of new plant (as distinct from Repairs and Renewals)—
Columns 3 and 7 Nil
Other Columns Nil

‡ Inhabited houses as given by Borough Treasurer 31/12/38 + 141 Trade Premises